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Studies in Tape Reading---I

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THERE is a widespread demand for more light on the subject of Tape Reading. Thousands of traders entertain the idea that in some way the market momentarily indicates its own immediate future; that these indications are accurately recorded on the tape; therefore he who can interpret what is imprinted on the narrow paper ribbon has within his reach unlimited wealth.

It seems to me that such an opinion is fully warranted for *it is well known that many of the most successful traders and operators of the present day began operations by successful Tape Reading, trading in fractional lots of stock with a capital of only a few hundred dollars.*

Speaking of Joe Manning, one of the shrewdest and most successful of all the traders on the floor of the New York Stock Exchange, a friend of mine once said:

"Joe and I used to trade in ten share lots together. He was an ordinary trader, just as I am. We used to hang over the same ticker."

The speaker was, at the time he made the remark, still trading in ten share lots, while I happened to know that Joe's bank balance—his active working capital—amounted to $100,000, and that this represents but a part of the fortune built on his ability to interpret the language of the tape.

Why was one of these men able to amass a fortune, while the other never acquired more than a few thousand dollars at the same pursuit? Their chances were equal at the start so far as capital and opportunity go. The millions were there waiting to be won by either or both.

The answer seems to be in the peculiar mental qualifications, highly potent in the successful trader, but unpossessed by the other. There is, of course, a small element of luck in every case, but pure luck could not be so sustained in Manning's case as to carry him through operations covering a term of years.

By proper mental equipment we do not mean the mere ability to take a loss, define the trend, or to execute some other move characteristic of the professional trader. These might have active or dormant qualities in his make-up. The power to drill himself into the right mental attitude; to stifle his emotion, fear, anxiety, elation, recklessness, to train his mind into obedience so that it recognized but one master—the tape—these, if possessed, would be as valuable in shaping the result as natural ability, or what is called the sixth sense in trading.

Some people are born musicians, others seemingly void of musical taste, *develop* themselves into virtuosos. It is the amount of I WILL in a man which

makes him mediocre or pre-eminent—in Wall Street parlance, a dub or a big trader.

Jacob Field is another exponent of Tape Reading. Those who knew "Jakey" when he began his Wall Street career, were impressed by his ability to read the tape, and follow the trend. His talent for this work was doubtless born in him; time and experience have intensified it until now he is considered by the majority of his fellows, the Prince of Floor Traders.

Whatever laurels Mr. Keene has won as an operator or syndicate manager, do not detract from his reputation as a Tape Reader. His scrutiny of the tape is so intense that he appears to be in a trance while his mental processes are being worked out. He seems to analyze prices, volumes and fluctuations down to the finest imaginable point, then telephones to the floor to ascertain the character of buying and selling in certain active stocks. With this auxiliary information he completes his judgment and makes his commitments.

Mr. Keene stands to-day on the pinnacle of fame as a Tape Reader, and his daily presence at the ticker is sufficient evidence that the work pays and pays well.

One might say: "These are rare examples. The average man never makes a success of Tape Reading."

Right you are! The *average* man seldom makes a success of anything.

Success in this field usually results from years of painstaking effort and absolute concentration upon the subject. It requires that one devote his whole time and attention to the tape. He should have no other business or profession.

"A man cannot serve two masters," and the tape is a tyrant.

One cannot become a Tape Reader by giving the ticker absent treatment; nor by running into his broker's office after lunch, or seeing "how the market closed" from his evening newspaper. He cannot study this art from the far end of a telegraph or telephone wire. He *must* spend twenty-seven hours a week at the ticker, and many more hours away from it studying his mistakes and finding the "why" of his losses.

If Tape Reading were an exact science, one would simply have to assemble the factors, carry out the operations indicated, and trade accordingly. But the factors influencing the market are infinite in their number and character as well as in their effect upon the market, and to attempt the construction of a Tape Reading formula would seem to be futile. However something of the kind (in the rough) may develop as we progress in this investigation, so let us preserve open minds.

What is Tape Reading?

This question may be best answered by first deciding what it is not.

Tape Reading is not merely looking at the tape to ascertain how prices are running.

It is not reading the news and then buying or selling "if the stock acts right."

It is not trading on tips, opinions, or information.

It is not buying "because they are going up," or selling "because they look weak."

It is not trading on chart indications or by other mechanical methods.

It is not "buying in dips and selling on bulges."

Nor is it any of the hundred other foolish things practised by the millions of people who take flyers in the stock market without method, forethought or calculation.

Tape Reading seems to us: The science of determining from the tape the immediate trend of prices.

It is judging from what appears on the tape *now*, what is likely to be shown in five minutes or more.

It bears no relation to clairvoyancy and we do not believe that spirits of departed friends could be of assistance to students.

Tape Reading is rapid-fire horse sense. Its object is to determine whether Union Pacific, which is now 159, will sell at 160 before 158, or vice-versa; to make deductions from each succeeding transaction—every shift of the market kaliedoscope; to grasp a new situation, force it lightning-like through the weighing machine of the brain, and to reach a decision which can be acted upon with cool-

ness and precision—all within the space of a few seconds.

It is gauging the momentary supply and demand in particular stocks and in the whole market, comparing the forces behind each and their relationship, each to the other and to all.

A Tape Reader is like the manager of a department store; into his office are poured hundreds of reports of sales made by the various departments. He notes the general trend of business—whether demand is heavy or light throughout the store, but lends special attention to the lines in which demand is abnormally strong or weak. When he finds difficulty in keeping his shelves full in a certain department, he instructs his buyers, and they increase their buying orders; when certain goods do not move he knows there is little demand (market) for them, therefore, he lowers his prices, —offers inducements to possible purchasers.

A floor trader who stands in one crowd all day is like the buyer for one department—he sees more quickly than anyone else the demand for that class of goods, but has no way of comparing it to that prevailing in other parts of the store.

He may be trading on the long side of Union Pacific, which has a strong upward trend, when suddenly a break in another stock will demoralize the market in Union Pacific, and he will be forced to compete with others who have stocks to sell.

The Tape Reader, on the other hand, from his perch at the ticker, enjoys a bird's eye view of the whole field. When serious weakness develops in any quarter, he is quick to note, weigh and act.

Another advantage in favor of the Tape Reader: The tape tells the news minutes, hours and days before the news tickers, or newspapers, and before it can become current gossip. Everything from a foreign war to the passing of a dividend; from the swinging of the Big Stick to the ravages of the boll weevil is reflected primarily upon the tape.

The insider who knows a dividend is to be jumped from 6 per cent. to 10 per cent. shows his hand on the tape when he attempts to turn his knowledge into dollars, and the investor with 100 shares to sell makes his fractional impress upon its market price.

The market is like a slowly revolving wheel, whether the wheel will continue to revolve in the same direction, stand still or reverse depends entirely upon the forces which come in contact with its hub and tread. Even when the contact is broken, and nothing remains to affect its course, the wheel retains a certain impulse from the most recent dominating force, and revolves until it comes to a standstill or is subjected to other influences.

The engineers who harnessed Niagara had a simple task compared to that of the Tape Reader. The cataract which he undertakes to control, seemingly has cross-currents and maelstroms, reversing its direction and defying the laws of gravity. To divert a portion of this unruly Wall Street stream, to subject it to his will, seems like a task for a superman. Yet it can be done, for others have done it.

The element of manipulation need not discourage any one. Manipulators are giant traders, wearing seven leagued boots. The trained ear can detect the steady "clump, clump," as they progress, and the footprints are recognized in enormous quantities of stock appearing on the tape. Little fellows are at liberty to tip toe wherever the footprints lead, but they must be wary that the giants do not turn quickly and crush them.

The Tape Reader has many advantages over the long swing operator, he never ventures far from shore; that is, he plays with a close stop, never laying himself open to a large loss. Accidents, or catastrophies cannot seriously injure him because he can reverse his position in an instant, and follow the new-formed stream from source to mouth. As his position on either the long or short side is confirmed and emphasized, he increases his line, thus following up and cumulating the advantage gained.

A simon-pure Tape Reader does not care to carry stocks over night. The tape is then silent, and he only knows what to do when it tells him. Something may occur at midnight which may crumple up his diagram of the next day's market. He leaves nothing to

chance; hence he prefers a clean sheet when the 3 o'clock gong strikes.

By this method interest charges are avoided, reducing the percentage against him to a considerable extent.

The Tape Reader is like a vender of fruit who, each morning, provides himself with a stock of the choicest and most seasonable product, and for which there is the greatest demand. He pays his cash and disposes of the goods as quickly as possible, at a profit varying from 50 to 100 per cent on cost. To carry his stock over night causes a loss on account of spoilage. This corresponds with the interest charge to the trader.

The fruit vender is successful because he knows what and when to buy, also where and how to sell. But there are stormy days when he cannot go out; when buyers do not appear; when he is arrested, fined or locked up by a blue-coated despot or his wares are scattered abroad by a careless truckman.

Wall Street will readily apply these situations to the various attitudes in which the Tape Reader finds himself. He ventures $100 to make $200, and as the market goes in his favor his risk is reduced, but there are times when he finds himself at sea, with his stock deteriorating. Or the market is so unsettled that he does not know how to act; he is caught on stop or held motionless in a dead market; he takes a series of losses, or is obliged to be away from the tape when opportunities occur. His calculations are completely upset by some unforeseen event or his capital is impaired by overtrading or poor judgment.

The vender does not hope to buy a barrel of apples for $3.00 and sell them the same day for $300. He expects to make from nothing to $3 a day. He depends upon a small but certain profit, which will average enough over a week or a month to pay him for his time and labor.

This is the objective point of the Tape Reader—to make an average profit. In a month's operations he may make $3,500 and lose $3,000—a net profit of $500 to show for his work. If he can keep this average up, trading in 100 share lots, throughout a year, he has only to increase his unit to 200, 300, and 500 shares or more, and the results will be tremendous.

The amount of capital or the size of the order is of secondary importance to this question: Can you trade in and out of all kinds of markets and show an average profit of say 1/8 per cent. per day? If so, you are proficient in the art. If you can trade with only a small average loss per day, or come out even, you are rapidly getting there.

In the December TICKER there was set forth the record made by a trader whose operations showed 42 profits out of 71 trades, the gross points profit being 50 3/8 against 37 1/4 gross points loss. This was good work, although the commissions and tax threw the net result over into a loss of 6 points. We mention this merely to show the standard by which success in Tape Reading should be measured.

The trader who there disclosed the outcome of his efforts was not a Tape Reader. He operated largely upon information and had no fixed method.

A Tape Reader abhors information and follows a definite and thoroughly tested plan, which after months and years of practice becomes second nature to him. His mind forms habits which operate automatically in guiding his market ventures.

No intelligent human needs be told that when the sky darkens and the thunder rolls there's likely to be a shower. He unconsciously notes the preliminary signs, dons a raincoat and takes an umbrella.

Long practice will make the Tape Reader just as proficient in forecasting stock market events, but his intuition will be reinforced by logic, reason and analysis.

Here we find the characteristics which distinguish the Tape Reader from the Scalper. The latter is essentially one who tries to grab a point or two profit "without rhyme or reason"—he don't care how, so long as he gets it.

A Scalper will trade on a tip, a look, a guess, a hearsay, on what he thinks or what a friend of a friend of Morgan's says.

The Tape Reader evolves himself into an automaton which takes note of a sit-

uation, weighs it, decides upon a course and gives an order. There is no quickening of the pulse, no nerves, no hopes or fears. The result produces neither elation nor depression. There is equanimity before, during and after the trade.

The Scalper is a bob-tailed car with rattling windows, a jouncing motion and a strong tendency to jump the track.

The Tape Reader is like a Pullman coach, which travels smoothly and steadily along the roadbed of the tape, acquiring direction and speed from the market engine, and being influenced by nothing else whatever.

Having thus described our ideal Tape Reader in a general way, let us inquire into some of the requisite qualifications.

First, he must be absolutely self-reliant. A dependent person whose judgment hangs upon that of others will find himself swayed by a thousand outside influences. At critical points his judgment will be useless. He must be able to say: "The facts are——; the resulting indications are——; therefore I will do thus and so."

Next he must be familiar with the technicalities of the market, so that every little incident affecting prices will be given due weight. He should know the history, earnings and financial condition of the companies in whose stock he is trading; the ways of the manipulators; the different kinds of markets; be able to measure the effect of news and rumors; know when and in what stocks it is best to trade; measure the forces behind them; know when to cut a loss and take a profit.

He must study the various swings and know where the market and his particular stock stands; must recognize the inherent weakness or strength of the market; understand the basis or logic of movements. He should study the fundamentals and sift the wheat from the chaff; recognize the turning points of the market; see in his mind's eye what is happening on the floor.

He must have the nerve to stand a series of losses; persistence to keep him at the work during adverse periods; self-control to avoid overtrading and a phlegmatic disposition to ballast and balance him at all times.

For perfect concentration as a protection from the tips, gossip and other influences which abound in a broker's office, he should, if possible, seclude himself. A tiny room with a ticker, a desk and private telephone connection with his broker's office are all the facilities required. The work requires such delicate balance of the faculties that the slightest influence either way may throw the result against the trader. He may say: "Nothing influences me," but unconsciously it does affect his judgment to know that another man is bearish at a point where he thinks stocks should be bought. The mere thought, "He may be right," has a deterring influence upon him; he hesitates; the opportunity is lost. No matter how the market goes from that point, he has missed a cog and his mental machinery is thrown out of gear. Silence is a much needed lubricant to the Tape Reader's mind.

The advisability of having even a news ticker in the room, is a subject for discussion.

The tape tells the present and future of the market.

The news ticker records what *has* happened. It announces the cause for the effect which has already been more or less felt in the market.

Money is made in Tape Reading by anticipating what is coming—not by waiting till it happens and going with the crowd.

The *effect* of news is an entirely different proposition. Considerable light is thrown on the technical strength or weakness of the market and special stocks by their action in the face of important news. This we will discuss more fully later on, but for the moment it seems that a news ticker might be admitted to the sanctum, provided its whisperings are given only the weight to which they are entitled.

To evolve a practical method—one which *any* trader may use in his daily operations and which those with varying proficiency in the art of Tape Reading will find of value and assistance—such is the task we have set before us in this series. Perhaps we shall succeed; perhaps not.

We will consider all the market fac-

tors of vital importance in Tape Reading, as well as methods used by experts. These will be illustrated by reproductions from the tape. Every effort will be made to produce something of definite, tangible value to those who are now operating in a hit-or-miss sort of way.

Ed. Note—Your inquiries, criticisms or suggestions are invited.

Arthur Livermore—Lamb

SAID Arthur Livermore, in a recent interview: "I have always been a speculator since I was in knee breeches. A successful speculator must have his tools of trade. Mine are a knowledge of supply and demand. That embraces many things that are not taught in college.

"To begin with, I am a lamb. I am not a broker. I am a speculator pure and simple. I have been ever since I was 16 years old. My first venture was made in Worcester in 1893, when a boy friend and myself made a turn in Burlington & Quincy in a local bucket shop. My profits from the deal were $3.12. That started me trading and before I was 21 I had made between eight and nine thousand dollars. I had many ups and downs and when I went to Boston, about ten years ago, I had just $15 in my pocket.

"I had learned a few things about speculation, and have learned something new every day. It is a wonderful schooling but the cost of tuition is pretty high. Still, almost from the start I was moderately successful. From Boston I went to Chicago, and thence to Denver, meeting many vicissitudes, but usually coming out ahead in the long run. I never valued money for money itself. I have always cared for it only as a means to enlarge my operations.

"I have not always been a cotton speculator. In fact, it is only within the last two years that I have given especial attention to that form of speculation. My first big profits were made in the panic of last year. In December, 1906, I became convinced that the tremendous over speculation and over extension in all forms of business were bound to result in disastrous liquidation. I was pretty comfortably fixed at that time, and I put out a large short line of Union Pacific, Reading, Copper and Smelters.

"As prices melted from the high levels I increased my commitments until on March 14 I had thousands of shares of short contracts out. When the crash came that day I covered every contract and, on May 8 following Mrs. Livermore and myself sailed for a long vacation abroad."

Bonds*

Their Various Forms—How Issued and Secured—Methods of Determining Value

By F. R. FULLER, of Fuller & Co.

A CONSOLIDATED bond of a railroad might be subject to a first mortgage, second mortgage, or even to a third mortgage. A railroad might issue first mortgage bonds on a given mileage, say 1,000 miles; second mortgage bonds on the same mileage, and then a third mortgage on 500 of the same 1,000 miles. It could then issue a Consolidated Mortgage Bond, which would in reality be a fourth mortgage on one section, as well as a third mortgage bond on the remaining 500 miles. Just what liens or mortgages come ahead of a Consolidated Mortgage Bond can be learned by investigating the mortgage deed itself.

The fact that a bond is a First Mortgage is no guarantee of value. Such a bond may not be as well secured as a Third Mortgage Bond on some other road. For instance: If a First Mortgage Bond was issued on a road at the rate of $30,000, or $40,000 per mile, followed by Second and Third Mortgage Bonds, bringing the total bonded indebtedness per mile up to say $6,000, and if the railroad's earnings were sufficient to pay all its fixed charges, and, for a series of years, dividends upon its capital stock, *then* the bonds secured by the third mortgage would sell on a basis to yield from 4.30 to 4.50 per cent. They would be considered good investments.

On the other hand, we will suppose that a road issues First Mortgage Bonds upon its trackage at the rate of $60,000 per mile; that there are no other mortgages, and that its earnings covering a period of years are not sufficient to pay dividends upon its capital stock, in fact its yearly surplus amounts to substantially nothing after paying the fixed interest requirements. The First Mortgage Bonds of such a railroad would not sell on as good a basis as the Third Mortgage Bonds of the first mentioned property.

In considering the value of a First, Second, Third, or Consolidated Mortgage Bond, it is very important to know the terms upon which bondholders or the trustees representing them can foreclose and take possession of the road after a default has been made in the payment of interest.

The best mortgage from an investor's point of view is one which allows a reasonable percentage of the bondholders or their representatives to take possession of the road after default of interest.

The investment value of First, Second, Third and Consolidated Mortgage Bonds is determined not only by the rate of interest paid, and the amount of the mortgage per mile, but by the character and stability of the business conducted by the railroad and its surplus over and above interest requirements.

The fixed charges of a road include interest on bonds, notes or other indebtedness.

We will next consider a Sinking Fund Bond.

A Sinking Fund is a sum set aside annually to meet the principal of the bonds at par or some other definite price, or for the purpose of purchasing the bonds in the open market. Sinking fund clauses vary according to the terms in the deed of trust. The mortgage deed states the full details of any sinking fund provisions.

When a bond is designated as a Gold Bond, it means that the payment of interest and principal will be made in gold upon request of the bondholder.

Let us now consider a Collateral Trust Bond. Such bonds are not secured by mortgage but usually by a deposit only

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* This article began in the October issue.

with the trustee, bonds or stocks of various branch lines, or other properties. Branch lines owned are mortgaged and the bonds issued are placed in the Treasury of the parent company. When the additional funds are needed instead of selling those bonds to investors, the company issues bonds which are a direct obligation upon the earnings of the whole system, and to further secure the payment of the principal and interest it deposits "as collateral," with the trustee, bonds of the branch lines. The bonds issued are therefore, known as Collateral Trust Bonds, the collateral being held in trust to secure the bondholders.

The value and character of the collateral establishes the value of the bonds issued. Should the collateral depreciate, or if the collateral be of a fluctuating nature, the bond would become less valuable.

Purchase Money Bonds are usually secured by a first lien on terminals of a railroad company or some other property specifically purchased. Such bonds are a direct obligation on the railroad and their payment is further secured by a first mortgage upon the real estate or other property purchased. This form of bonds is not extensively used.

Next there is the Convertible Bond. These are not as a rule, secured by mortgage, collateral, or by a lien of any kind, nor do they carry sinking fund provisions. They are merely a direct obligation of the railroad. They are attractive to the investor because while they bear interest at a certain rate, they may be converted by their holders into stock of the railroad on a fixed basis of exchange.

To explain more fully: A holder of a $1,000 Union Pacific Convertible Bond may convert that bond into shares of stock of the Union Pacific Railroad Company on the basis of $175 per share for the stock and par for the bond.

The prices at which these convertible bonds sell vary according to the market price of the stock. They do not possess the intrinsic value of First Mortgage or bonds otherwise secured.

In the development of the present large railroad systems, many small roads have been acquired through the purchase of stock. Bonds were issued upon the property absorbed, the parent system guaranteeing the principal and interest. In practically all cases, bonds were already in existence and in many such instances, upon acquiring the railroad through lease or purchase, the payment of these underlying bonds, both as to principal and interest, was guaranteed by the controlling company.

The value of a Guaranteed Bond, however, can never be fully ascertained without a very careful examination of the guarantee itself.

Certain railroads having acquired other properties through purchase or lease, finding themselves unable to pay the interest upon the guaranteed bonds, during panic or hard times (the acquired railroad being unable to earn the interest) have allowed bondholders to foreclose. Upon examination of the deed of trust, in such cases, it has frequently been found that the guarantee of the acquired railroad was in such form that bondholders could not proceed against the guaranteeing railroad and force them to pay the principal and interest. The bond of a small railroad is, of course, made extremely valuable if it is guaranteed by a large railroad system, providing the guarantee is of such a character that the payment of the principal and interest becomes a direct obligation of the large system.

Debenture Bonds are substantially promissory notes with coupons attached. They are not as a rule secured either by a mortgage or by a deposit of collateral. The payment of interest depends upon the surplus net earnings of the road, and the payment of the principal upon the company's ability to finance the issue at maturity.

A Debenture Bond is not a lien upon the property, and in many instances, debentures occupy, for this reason, an inferior position to other bonds of the road. They are in a sense subordinate to the nnsecured short-time credit obligations of the corporation because they have the advantage of earlier maturity.

Debenture Bonds are secured in some instances. A good example is the Atchison, Topeka & Santa Fe Railway Co. 4% Serial Debenture. $20,000,000 of these were issued. They are not a lien

on any property, but the company agrees, "That it will not execute any new mortgage upon any of the lines of the railway owned by it, except by way of further security for bonds issued under existing mortgages of the railway company, unless, by the terms of such new mortgage, it shall be provided that all of said issue of Debenture Bonds outstanding shall be included in the debts secured by said new mortgage."

There is another class known as Divisional Bonds. These are secured by a mortgage upon some particular division of the railway system and at the same time are a direct obligation upon all the earnings of the system.

A good example of this is furnished by what is known as the Atchison, Topeka & Santa Fe Railway, Eastern Oklahoma Division First Gold 4s, dated February, 1903. There were $6,128,000 of these bonds issued. They were secured by a mortgage executed by the Eastern Oklahoma Railway Co., to secure bonds issued by the Atchison, Topeka & Santa Fe Railway. They are an absolute first mortgage on 282 miles of railway and in addition, a direct obligation upon all the earnings of the Atchison, Topeka & Santa Fe Railway System.

Another class of bonds issued by the same system, differing from ordinary bonds in many respects, are known as Adjustment Bonds. These Bonds were designated as the Atchison, Topeka & Santa Fe Railway Adjustment Gold 4s. They were called Adjustment Bonds because of the manner in which the payment of the interest and principal was secured. These Bonds were dated December 12, 1895. At this same time, the railroad issued General Mortgage Bonds. The latter covered the entire system and were subject to existing mortgages upon the various portions of the road. The Adjustment Bonds were secured by the same property as the General Mortgage Bonds but were subject to them, that is, the Generals were a prior lien to the Adjustments. The interest on the Adjustments was made payable annually, out of net earnings for any fiscal year, up to 4% per annum. The interest was non-cumulative prior to July 1, 1900. Since that time, it is cumulative, but the mortgage cannot be foreclosed prior to maturity; that is, the mortgage cannot be foreclosed because of failure of the company to pay the interest as it becomes due.

A Prior Lien Bond is one which is usually issued at the same time that an ordinary first mortgage bond is issued. If the true meaning of the title were carried out, a Prior Lien Bond would take priority over the so-called First Mortgage Bond, but the title has frequently been misused so that it now signifies merely priority over other issues. All this is shown in the Deed of Trust.

A Refunding Bond is issued to take the place of or "pay off" an issue of bonds that is becoming or has become due.

Many corporations in need of funds at a time when money is high, issue temporary certificates of indebtedness in the form of Notes running a short time, that is, payable in three to five years and bearing a comparatively high rate of interest. This is done when it would not be possible to float low interest bearing securities. To provide for the payment of these Short Term Notes when they fall due, Refunding Bonds are issued. These bear a lower rate of interest and the temporary indebtedness thus becomes permanent.

Income Bonds are not secured by a mortgage or by collateral. To secure the payment of their principal and interest, the income or surplus of the railroad is usually pledged. They have a prior claim to preferred stock or common stock.

An Extended Bond is one which has become due, but which, by an agreement between the corporation and the bondholders has had its maturity date postponed. In such a transaction, the original bonds are called in by the trustee and each bond is stamped across its face, substantially as follows:

"Extended in accordance with the annexed agreemnt of .... (whatever date the extension takes place)." The agreement then becomes a part of the trust deed.

A Unified Bond is in many respects like a General Mortgage or a Consolidated Bond, the title being given to designate it from other issues. One such

issue is called the Louisville & Nashville Unified Gold 4s, dated June, 1890, due July, 1940. Part of the issue was used to retire Prior Liens. In that respect, they acted as Refunding Bonds. They were also a direct lien upon various lines of the system, subject to prior mortgages. In that respect, they were Mortgage Bonds.

Terminal Bonds are, as a rule, secured by a mortgage (either first, second, or third), upon the terminal properties of the corporation. By terminal properties is meant the railroad stations and other property at the terminal points of the system and in the large cities through which the road passes.

Land Grant Bonds are usually secured by lands granted to the corporation. They are, of course, direct obligations of the corporation, the term being used merely to designate the security behind the bonds.

A Joint Bond is one which is a direct obligation of two or more corporations. A good illustration is the Norfolk & Western-Pocahontas Coal Co., Joint 4s. These bonds are secured on about 290,000 acres of coal lands located in West Virginia, comprising about four-fifths of the Pocahontas Flat Top Coal Fields. They are the joint obligation of the Pocahontas Coal & Coke Co., and the Norfolk & Western Railway Co. By agreement, it is arranged that as between the two companies, the bonds are to be paid by the Coal & Coke Co. Of course, if the Coal & Coke Co. fails to pay the interest or the principal when due, the Norfolk & Western Railway would be obliged to do so. Each corporation is jointly and severally obligated.

An Equipment Bond is one issued to raise funds with which to pay for new cars locomotives, etc. Equipment Bonds differ from mortgage bonds and from all other issues previously described. They are sometimes known as Car Trust Certificates or Equipment Notes.

In order to secure bonds of this character, various plans have been used by different corporations. The best known and most efficient is as follows:

At the request of the railroad corporation which desires to purchase equipment, a trustee contracts with certain builders of cars and locomotives who are to furnish the necessary equipment. The railroad usually pays in cash from 10 to 20% of the cost of the equipment and the balance is represented by the Equipment Bonds. These bonds are a direct obligation of the railroad. They are usually issued in denominations of $500 or $1,000, and carry coupons as well as some provision as to registration of principal and interest. They pay their interest semi-annually as a rule. They are secured by a first lien upon the entire equipment purchased. The title of the equipment vests in the trustee for the benefit of the bondholders until the last bond has been paid; therefore, a general mortgage upon a railroad canot attach to the equipment behind outstanding Equipment Bonds.

When the Equipment Bonds are paid in full, principal and interest, the trustee executes a bill of sale to the railroad which then becomes absolute owner of the equipment. Usually, by the terms of the deed of trust, the railroad is obliged to keep the equipment in complete repair and replaces such as may become worn out or destroyed.

Equipment Bonds are, as a rule, issued in serial form; that is a certain amount mature each year, the last payment falling due in from ten to fifteen years.

Equipment Bonds are highly regarded among investors. The security is good at the beginning and increases proportionately in value, year by year, as the amount outstanding is reduced.

Some Equipment Bonds, instead of being retired annually, substitute a sinking fund which is either to pay off 5% of the indebtedness each year, or to purchase additional equipment, which is added to that covered by the deed of trust.

Frequently the railroad provides, for its equipment by arranging for some individual or corporation to purchase the equipment in behalf of the railroad; the railroad then leases the equipment, paying for it an amount equivalent to the interest and an annual payment large enough to retire the bonds. The lease is then assigned to a trustee who thereupon issues Certifi-

cates of Trust; these are virtually equipment bonds and are guaranteed by the railroad both as to principal and interest. When payment has been made upon the last certificate, the trustee assigns the title to the railroad.

Equipment Bonds furnish a sound investment medium. Experience has taught investors that even when a railroad has gone into the hands of a receiver the interest upon its Equipment Bonds has been paid and the bonds retired as provided in the deed of trust. The reason for this is that the receiver could not operate the railroad without the equipment. The trustee is thus able to demand that the terms of the deed of trust be carried out.

How Stock Exchange Transactions Are Reported

Method of Floor Reporting—Machinery Behind the Tape

EVERYTHING which we do not thoroughly understand, semse complicated, until in the light of inquiry and investigation all is made clear.

To stand beside the ticker on an ordinary business day and realize that the transaction which appears just beneath its wheel, actually took place only two or three *seconds* ago, is somewhat difficult unless the system and the machinery behind the imprint has been fully explained.

The statement is made by the highest authority that the report of a sale frequently appears on the tape before the brokers making the trade are able to write their memorandums. In many cases disputes over this point have arisen betwen floor reporters and brokers, the latter claiming that it was impossible to put the trade on the ticker in such lightning time. If experienced brokers question the rapidity of the work, it is not to be wondered that outsiders raise arguments regarding the fairness of an execution.

Each tape record of a trade constitutes a complete short story. Certain events lead up to it; there is a preface, a climax and a conclusion. Each sale produces its effect upon the rest of the market—infinitesimal, perhaps, but definite. There are several thousand of these short stories on each day's tape record and those who can correctly read the trend of events from these mosaics, will, in a Wall Street sense, "be happy ever after."

The ticker is in reality a small printing press, operated by electricity. Dozens of them are strung together in groups called

circuits, and perhaps a thousand are operated from one keyboard in New York City alone. A complete day's news requires several hundred feet of tape and forms a chapter in the history of American finance.

The ticker has its staff of reporters—about twenty in all, headed by their chief, familiarly known on the floor as "Bamford." Mr. Bamford also supervises the work of four telegraph operators, one of whom is stationed in the centre of each quarter of the floor. At these points are pedestals about like those used for the tickers, each equipped with a Morse telegraph key and sounder. The operator stands upright while sending.

Now picture the floor at a few minutes before the opening, with a reporter in each crowd. The chief, noting that there is an unusually large number of brokers in Amalgamated and Union Pacific, prepares for a "wide opening" by sending one or two extra reporters into those stocks until the first rush is over.

The reporters *hear* the transactions made—they do not wait to be told. Each is a witness to nearly every trade which takes place in his respective stocks. He gets them down in their proper order too; this means that he does not report sales at ⅞, ⅝, ¾, when they should be ⅞, ¾, ⅝. Standing in the midst of the crowd, he hears everything that is said—takes mental note of bid and asked prices, which act as a check on his record of sales. For instance, he knows that a sale of 300 shares could not take place at ⅝, when ¾ is bid for any part of 1,000 shares.

At times trades are quietly made between brokers who care nothing about the tape—a couple of floor brokers, perhaps, having no clients to whom they are accountable. If the reporter does not hear or witness the trade, it will go unreported. There is nothing in the Stock Exchange rules which makes it compulsory for members to report transactions.

Frequently an unreported trade will be referred to in conversation between those in the crowd, and the reporter becoming aware of it, will put it over the tape "U. P. Sld. 500, 164⅛," meaning that the sale took place previously and is being reported out of its proper sequence.

Often a customer will be given a report at a price which has not appeared on the tape. A protest sent to the floor results in the trade being confirmed and reported on the tape in like manner.

The reporter's equipment consists of a paper pad about 3½x4 inches, on the reverse side of which, held by a rubber band, are a number of slips half that size. On the pad is kept his permanent record. This is ruled in eight narrow columns. When filled out, one of these columns appears thus:

U. P.

800	¼
500	⅛
300	164
1,000	⅜

The smaller slips are used as tiny message blanks on which one or more transactions in the same stock are recorded. These are handed to the nearest telegraph operator who, after sending them over his wire, sticks them on a file.

The reporter carries his own slips to the telegraph operator—he does not use pages for this important work. Nothing must go astray; no cogs must be skipped on the ticker's machinery.

While out of the crowd sales may take place. When he returns he will ask the Specialist, or some other broker who will reply, "500 sold at ⅜ and 100 at ½." Seldom is anything missed, particularly when new high or low prices are touched. It is only a step from any crowd to a telegraph instrument and the indicators on each post give the last sale at all times.

Of course one reporter "covers" a number of stocks—from five to twenty, according to their activity. There are sixteen "posts" on the floor and at least one man is assigned to each. A dozen or more stocks are located at each post, but the majority are inactive; this enables the reporter to devote the major portion of his time to those in which transactions are numerous.

Even in panics one reporter can cover a stock like Northern Pacific or Union Pacific except at the opening. The only reason it cannot be done at the opening is owing to the size of the crowd, trans-

actions taking place at different prices in different parts of the group. At all other times during the session each crowd has its centre and the market for it is represented by the highest bid and lowest offer. As a rule the reporter circles about the post with eyes and ears alert to catch whatever trades are made.

One broker may shout "Five hundred Steel at an eighth."

"Take it," says another, and the reporter has it on his pad, "U. S. 500, 45⅛," and in a couple of seconds it is "over the wire"—long before the brokers can report it at their telephone booths.

The four wires—one from each quarter of the floor, lead to ticker headquarters—a room on an upper floor of the Stock Exchange building.

In this room, seated about a T-shaped table, several shirt-sleeved men are grouped. One in the centre has before him a round keyboard, about a foot in diameter with black, white and colored keys, each corresponding to a certain letter, figure, fraction or character on the printing wheel of the ticker. When the key A is touched the wheels on a thousand tickers spin around and print the letter. It is not quite so rapid as a typewriter, but much faster than the Morse code, by which the reports come up from the floor.

In front of the man at the keyboard a ticker responds to his every touch; thus he keeps tab on his own accuracy. In front of him is a small rack which holds the reports coming over the four wires. These are written on sheets of paper the size of an ordinary telegraph blank, and the messages are counterparts of the original slips written by the floor reporters.

When the market is active, the room seems, judging by the noise, like a telegraph office. At such times it is the business of one man to collect the reports and place them in proper order in front of the keyboard operator. When the market is dull the man at the keyboard (who also understands telegraphy), takes the reports direct from the wire and has them on the tape before the receiving operator can write them out in long-hand. This accounts for the rapidity with which transactions appear on the tape in dull times. In big markets the tape is frequently fifteen or twenty minutes behind the actual sales, owing to congestion at the keyboard. Obviously it is impossible for one keyboard operator to keep pace with four wires over which "strings" of transactions are being sent all day long.

In average markets, the telegraph operators also watch the tape; when the keyboard man sends a report direct from the wire, the telegraph operator denotes the fact by drawing a line under the report on the message blank. In this way repetitions are avoided.

Each telegraph wire is equipped with a double sounder and resonator. The operators sit close to the sounders so that no confusion results from the multiplicity of incoming reports.

The precautions taken to prevent delays or interruptions to the service, are evidenced by the double equipment. In case of trouble on a wire or with an operator, a duplicate wire is switched into the service or another operator sits down at the other sounder attached on the same wire. In fact the whole layout is duplicated in another T-shaped table, keyboard and set of instruments.

On the day the writer happened to visit headquarters, all hands were at that moment looking anxiously at the ticker which had just printed in a hesitating way, U. P. 164½-½-½, as it is often known to do. The keys did not respond properly, and after vainly trying for a brief space of time to bring them into proper control again, the Chief said:

"It's in the circuit. Come over here, boys."

At the word the "boys" rose like a flock of crows, and settled down on the other table. The ticker instantly resumed its story. The interruption had taken but a few moments, and no one among the thousands of tape watchers were aware that anything unusual had occurred.

The tickers thus supplied are the property of the New York Quotation Company, which rents its instruments to members of the New York Stock Exchange only. Another thousand tickers are owned and leased by the Gold and Stock Telegraph Company. These are rented to non-members south of Cham-

bers street and to all others (whether members or not), north of that thoroughfare.

The Gold and Stock Company also sends the quotations over the wires to Boston, Philadelphia, Chicago and other large cities, where similar keyboards distribute them over groups of tickers. The reports are also cabled abroad.

Thus in the space of a few seconds the market prices of New York stocks are published throughout two continents.

Sensational Mining Advertisements

How Constructed—How to Detect a Fraud—Mark Twain's Bonanza

From HENRY B. CLIFFORD'S Book on Mining: "Rocks in the Road to Fortune."*

EVER since the wonderful profit possibilities of the mining industry became recognized by a class of men ready to go into any business where money can be made without manual labor, the public has been importuned in every conceivable form to buy mining stocks, for a few cents a share, which according to the vendors are "bound to bring fortunes to the holders." Ninety-five per cent. of these promotions were based upon simple prospects, that had not yet proven of commercial value.

For some time the system of circularizing was forced. Then the idea of saving postage by reaching hundreds of thousands by a display advertisement in the papers was conceived. Those lavish public notices of the fortunes that await you by the investment of a few dollars, have in a large measure run their course, and do not appeal to the intelligent investor, who understands that newspaper promotions are costly, and not always to be accepted as truthful statements of facts; but they will appeal to the wage-earner not experienced in the ways of so-called modern finance. It is estimated that thirty per cent. of all the money taken in by those who follow this form of advertising is paid out to advertising agencies.

Many of the most seductive advertisements are written by men who know very little about mining; some of them were never underground. They have been taught to write in the manner of the artist, who paints on commission the beauties of a landscape. The more fascinating the picture, the more praise and price for the artist. These word-artists boast of their ability to promise large profits without really saying anything upon which a grand jury could indict. Of late years, the more successful writers of mining literature deal in what Rufus Choate called "glittering generalities," and constantly keep in the minds of the readers the fact that some man has ac-

* Reprinted by permission.

quired great wealth in mining investments, and that the shares offered at a few cents have an equal chance of success. The commercial miner, with his knowledge of the actual conditions, could not write such matter, as his sense of honor, proper pride and self-respect would prevent him. He would know that even the mining industry, with its enormous possibilities, could not make good the promises. These alluring effusions, when dissected, mean nothing, and when some wronged and indignant investor arrests or sues those responsible for the efforts, he is often met with the defense that a man has a right to believe that a mine might be worth a million dollars, and yet the mine itself, from a commercial standpoint, not be worth a dollar. They know the law cannot control the mind of man, and he who expresses his belief, or who simply says, "that he is informed, or that he believes," such a mine will develop into a property worth millions, is simply giving an expression of opinion; yet, in reading these advertisements the unskilled overlook those little legal loopholes. There are, however, some able judges who do not agree about a man's belief constituting a defense, if the expression of the belief has caused some investor a loss and the expressor of the belief a gain. This subject is further discussed.

Some judges are of the opinion that even the advertising writers are parties to the act; that they know that their efforts are not intended for the public's good, or that there is any reasonable evidence of the ability of the promoter to keep his promise. The glittering displays of ancient history, covering the success of some of the most noted mines, or obscure cases where a hundred dollars has brought in a thousand, are so skilfully worded that the reader, glancing hurriedly over the matter, fails to see that in the advertisement there is no positive assertion, only hope and promise; one line of fact, reading: "We are shipping ore," is worth a page of such financial chaff.

There are but two things that should be told in a mining advertisement; first: "This is a prospect; some time after money is spent upon it, it may pay." The other is: "This mine has ore to-day in commercial bodies; it is well developed and equipped; therefore, it is reasonable to conclude that its present showing, which is of commercial nature, will continue for years."

That is all there is to mining. It is one or the other, prospect or mine. It may be called a mine, but unless it is upon a sound commercial basis, it is only a prospect, with its attendant hopes and risks. The so-called successful financial writer tries to cover the fact that a prospect is not a mine.

The promoter who is associated with some advertising agency has advantages not possessed by the average broker. He is able to carry credits, and often, before his bills fall due, he reaps the harvest of his labors. Other brokers are obliged to pay at the time their advertisement is inserted; besides, they are obliged to pay full public rates. They have, also, chances of having reading notices inserted that look like legitimate news from the mines.

When they are interested in opening some prospect, so-called special news letters are often published wherein their property is made to appear in fascinating relief; stories of strikes of rich ore are thus chronicled, and to all appearance it has the marking of legitimate mining news, sent out by the Associated Press. Generally this material is prepared and mailed to some paper under contract to insert financial advertisements. When published, other papers reproduce it innocently, thus the fame of the prospect is spread, and those selling the stock make up sheets of articles reproduced from different papers and mail them to those they are trying to impress.

Ridicule has often won victories for just causes. I am going to apply ridicule to the system of sending the self-prepared articles purporting to reflect the worth of some rich property. Mark Twain had experience in the sixties; the value of these so-called telegrams was known to him.

A number of years ago, when he was prospecting in the Nevada and California deserts, his eyes chanced to read a dispatch sent by a well-known mining writer from San Francisco to the *Satur-*

day Evening Post, in reference to gold said to be held in solution in the waters of the Calistoga Springs.

Now, Mark just applied his keen sense of humor to the ludicrous situation produced by the erstwhile "mining" writer, and he himself wrote thuswise:

"I have just seen your dispatch from San Francisco in *Saturday Evening's Post,*" wrote Mark, "about gold in solution in Calistoga Springs, and about the proprietor having extracted 1,600 ounces of gold in the utmost fineness from two barrels of water during the past fortnight, by a process known only to himself. This will surprise many of your readers, but it does not surprise me, for I once owned these springs myself. What does surprise me, however, is the falling off in richness of the water. In my time the yield was $1 a dipperful. I am not saying this to injure the property in case a sale is contemplated. I am saying it in the interest of history. It may be that the hotel proprietor's process is an inferior one. Yes, that may be the fault. Mine was to take my uncle (I had an extra one at that time on account of his parents dying and leaving him on my hands), and fill him up and let him stand fifteen minutes to give the water a chance to settle. Well, then, I inserted him in an exhaust receiver which had the effect of sucking gold out through his pores. I have taken more than $11,000 out of that old man in less than a day and a half.

"I should have held on to those springs but for the badness of the roads and the difficulty of getting the gold to market. I consider that the gold-yielding water is in many respects remarkable, and yet no more remarkable than the gold-bearing air of Catgut canyon up there toward the head of the auriferous range. This air, or this wind, blows steadily down through 600 miles of the richest quartz croppings during an hour and a quarter every day except Sundays; is heavily charged with exquisitely fine, impalpable gold. Nothing precipitates and solidifies this gold so readily as contact with human flesh heated by passion. The time that William Abrahams was disappointed in love he used to sit outdoors when the wind was blowing, and come in again and begin to sigh, and I would extract over a dollar and a half out of every sigh. He sighed right along, and the time that John Harbinson and Aleck Norton quarreled about Harbinson's dog, they stood there swearing at each other; and they knew how, and what they didn't know about swearing they couldn't learn from you and me, not by a good deal, and at the end of every three or four minutes they had to stop and declare a dividend. If they didn't their jaws would clog up so they couldn't get big, nine-syllable ones out at all, and when the wind was done blowing they cleaned up just a little over $1,600 apiece. I know these facts to be absolutely true, because I got them from a man whose mother I knew personally. I do not suppose a person could buy the water privilege at Calistoga now at any price, but several good locations along the course of the Catgut canyon gold-bearing trade winds are for sale. They are going to be stocked for the New York market. They will sell, too; people will swarm for them as thick as Hancock veterans in the South."

There is generally but little fact in these articles. A misrepresented fact is punishable and for that reason these articles say seldom anything positive like: "One hundred tons of ore were shipped to the smelter last week." The reader, once posted, can mark these self-prepared letters at a glance; there is seldom any statement of fact.

When impressed by the promises made through newspaper advertisements, remember, that that is not the system of raising money followed by commercial operators, who have mines. The system is too costly; and further, remember that if this system is the sound way, that the practical miners have not yet realized it, for

A review of all the propositions promoted by sensational advertisements during the past ten years proves there are not three to-day upon a healthy dividend paying basis.

It should be said that not one has so resulted, but the number three is set from the knowledge that accident, more often than the ability of the majority of promoters, make mines. The writer has openly asserted that if one hundred promoters of prospects or non-commercial mines could be eliminated from the field of mining, that there would end the system of unsound promotions, for, with the passing of the generals, the privates or local agents and traveling canvassers would find new occupations.

Where the locality is widely advertised, the district in which the scene is set invariably suffers. The money raised does not always find its way into the prospects; only a limited portion of it goes into actual underground development; when the results do not show ore in commercial bodies, the cry against mining goes up again. The investors who do not reason seldom recognize, that the district is not responsible for the foolish efforts of men, who do not understand mining; but ever afterwards there is a feeling of prejudice against that marked region, deserving men with properties, that do show ore, in need of development, to make the same commercial, fail to obtain support in the sections where the party prejudiced has influenced. What the mining district most requires, for a long, healthy life of ore-producing activity, is, that development be continued upon such lines as give reasonable chance of ultimate profit. Sensational advertising of the vast riches of the district only works permanent injury, unless the money obtained is honestly and well spent, that the prospect may have a fair chance to prove their worth. Every man has a right to advertise his wares, but in the case of mining, which is based upon the risks all experienced men acknowledge do exist, there should be statements of facts, in bold, positive type. Not a little fact, so woven between uncertainty, history, theory, promises and expectations, that the inexperienced can not separate the fact from romance. The public is willing to take a fair risk. It wants, however, to be told the facts. Commercial mining is built upon truth, and its results are known. Mining builds the world's greatest fortunes, and the restless American is eager to share the wealth. He believes that he is investing in legitimate mining; otherwise he would not invest. He would speculate in those mine shares acknowledged as Stock Exchange offsprings when the rise and fall mean but little intrinsically to the mine itself. Then why is it necessary to garble, to distort the truth about a prospect?

When shares are sold upon the promises stated, and the mine does not pass upon a dividend paying basis, the promoter, as an excuse for himself, will say that he has honestly tried to make a mine. "I did my part; I raised the money." But if success or failure follows his effort, it will generally be found that the promoter seldom loses. He, at least, gets his commissions. He is in the business for what he can make out of it. Few of them ever consider the commercial side; that which appeals to them is the proposition that gives the widest latitude for exaggerated statements, such as the old Bonanza Mine to be reclaimed; or the possible extension of some producing property. Legal talent is employed to keep his public assertions within the limit of the law, and the announcements are written with a view of exciting the inexperienced. There are few cases of record, where the investor ever collects from one of these men. Their failures and misrepresentations are usually credited to the unfortunate industry to which they have annexed themselves. Their apologies or regrets that are the closing chapter in those unsound ventures, are never accompanied by a manly statement of the fact, nor of a return of that which they received, that the wrong may, so far as it lies in their power, be atoned for.

The commercial miner of all districts disapproves of these publicity floated propositions. They know that success seldom follows. Let the investor look back ten years and see that if, within that period, from thousands of promotions, there have been even ten great dividend paying mines, made by funds obtained through this form of sensational publicity. Then study the source of the vast product that yearly flows from our mines; the many millions of dollars in dividends honestly won. You will

find that nearly all of it comes from properties that seldom advertise a line, but, instead, are making a daily product through its own operations, or the results of mine leasing. Their efforts are so homely, so careful that they have no place in the modern world of unsound show and tinsel.

Publicity promotions are not based upon the principles that make success. They are worked upon the theory that one mine is as good as another, and that they are justified in capitalizing at millions, and keeping a large part of the money the public invests as their share for inducing men and women to invest. Very little of the money paid for the shares so sold ever goes into underground work. There are other avenues of expense that must be paid first.

I know of persons who have held that the papers publishing these sensational and misleading announcements were in part responsible; but the writer does not fully agree upon this point. The great metropolitan papers that sell space over their counters cannot know of the truthfulness of all financial advertisements. It is the business of the papers to sell space, not to set a corps of engineers to investigate the claims of the promoters. Yet, it is a fact, that when it has been brought to the attention of many papers that certain advertisements were misleading, they have been "thrown out," and only recently a Western promoter found it hard to gain access to the principal Chicago dailies.

It may be said of mining papers that are in close touch with the industry, and know, from the few—if any—successes which come from sensational advertising, that the system does not give substantial returns, are better able to discriminate between the good and the bad. Provided that even a mining organ could take the trouble to attempt to draw the distinctive line. The remedy lies with the reader; let him reason. He can understand that sensationalism is for the profit of some one, other than the buyer. Let him try to sell, and he is met with the statement that the broker does not buy, he is selling. It does not take a very brilliant mind to understand this position. If we can divert the capital actually intended for mine development—from the coffers of the promoter, placed there upon claim of commissions and expenses,—into actual mine or prospect work, the returns would be handsome, and soon the industry would pass to its proper position in the esteem of the people, and while there would be disappointments the same as follow any industry, there would be less by fifty per cent. than the records show under prevailing conditions of modern promotion.

The article on Thomas W. Lawson in the October TICKER Magazine was greeted enthusiastically by thousands.

If you will send us the names of your clients or friends who have suffered losses in any of the Lawson campaigns we will mail each a copy of the TICKER containing the Lawson article, so that the burnt children may see the reason why they should in future avoid the fire.

If I Were a Broker

By A. CLIENT

IF I were a broker I should bend every effort toward the building up of a clientele of money-makers.

Realizing that every investor or speculator is void of knowledge as to the terms, usages, customs and methods of the Street, it would be my first endeavor to inform them as fully as possible regarding these things.

Of course, I could not sit down for hours and instruct each new client as he appeared, but I could put the vital points into printed form and place them in his hands. I should tell him which books, etc., give the clearest idea of the subject, and encourage him to study deeply, pointing to the fact that the losers in the field are composed largely of those who operate unintelligently; also that certain individuals have succeeded because they "knew how."

I should not advise a beginner to venture more than a small fraction of his capital at the start. My own experience has taught me that I would have made greater progress by commencing to trade in very small quantities. I would be more "to the good" now if my first trades had not been so large. It took me a long while to learn the ropes. Had some one warned me, my schooling would not have cost so much. The market can be "learned" just as well with ten share lots as a unit—no need of trying to interpret Greek poems till you've at least learned the alphabet.

My experience in the market reminds me of an old friend who, having made a small fortune (for him) in a real estate deal, decided to go into the country and raise chickens for profit and diversion. He spent about half his capital in the purchase of a farm, erecting the most approved houses and installing up-to-date incubators, etc. Everything was on an elaborate and expensive scale. He was going into the business permanently and thought he'd better have everything the best.

When all was prepared he started the first "hatch" and after many anxious days and nights, the day arrived when the chicks were due to pick their way out. The family was in constant attendance and expectancy was at a high pitch but nothing "picked"—not a single peep was heard from the whole blooming batch of eggs.

Other "hatches" came along and a few scrawny chicks finally appeared; most of them died at a tender age. In fact, it was a hard luck story from the very beginning. Finally, after a couple of years' pegging away he succeeded in hatching and raising a good percentage and now he is making money in the business.

Had he been wise he would have started in a small way in his back yard, profiting by his mistakes until his big plant was justified. But no one warned him.

It was exactly the same way with me. I began buying and selling hundred share lots and lost a pile of money before I even got hold of the first working principles. My broker was a good fellow but a little too anxious to get me in and out, so that he could profit by the commissions. A very short-sighted policy this is in my opinion, for I soon discovered it and quit him.

If he really had in mind the building of a solid foundation for future business, he would have encouraged me to start small and proceed cautiously. Out of the several thousand dollars I lost through his office, nearly half represented commissions. I now pay out *every year* more money in commissions than the amount of my original capital. My present broker, who was of practical assistance to me when I took my account over to him, has and will continue to profit handsomely by his *enlightened* self-interest.

If I were a broker I should never give a tip to a client. My plan would be to unearth opportunities, making certain of the facts and laying the proposition be-

fore the client with the distinct understanding that there existed no desire to influence him, but simply to call his attention to the situation. I have found that very few brokers are willing to play their own tips. Some say they *have* to give tips—their customers want to be told what to do—without tips they wouldn't do much business. I think they could better afford to do less business than have their clients lose money.

Those who trade on tips nearly always lose because tips usually emanate from those who take the opposite side of the market.

A broker seems justified in giving an opinion provided he says, "This is only my opinion." The market is made by the concensus of opinions held by millions of people. Any one man's opinion is but a drop in the bucket, and should be given and accepted as such.

Opinions of brokers and others seem to be moulded by the market itself. In proof of this read all obtainable financial articles in newspapers, together with such market letters as are available and you will find that the market's action is responsible for most of the opinions. Current market literature is like the snapper on the end of a whip—it makes its crack at the finish of the stroke.

If I were a broker I should pay people to bring me information on which my clients could make money. All other considerations would be secondary to this. I would realize that if my clients were unsuccessful they would suspend operations or go elsewhere; so it would be up to me to exercise a sort of guardianship over them by supplying the best and most reliable information which they might turn into profits. Money spent for this purpose would be well invested.

As it would be impossible for me to see and talk with all my clients, I should weave the information into a helpful, suggestive, interesting market letter, and issue it once a week. Out of hundreds of brokers' letters which have been mailed to me in times past, there is only one which I consider of real practical assistance to me in my trading. It gives a clear, concise view of the situation in the general market, then goes into details as to developments in a dozen or so different properties. It does not announce off-hand and know-it-all style, "Union Pacific is a purchase at these prices and will sell higher," but goes into reasons why this and other stocks are cheap or dear. It is the sort of letter that shows knowledge, research and close attention to the interest of the firm's clientele.

If I were a broker I should not speculate either for myself or my clients, because it would take my attention away from them, and subordinate their interests. I should also be deterred by fear of overstepping the mark and encroaching upon my capital. As a trader I know how desperate one becomes at times when he is forced to stand a series of losses, and I should not want to even approach the point where I might be tempted to plunge. There is a limit to every man's power ot resistance; every man has his price. I should never want to see how close I could come to mine without being scorched.

When a stranger or a new client came into my office I should greet him cordially, but not effusively. It would be my endeavor to make him feel at home and to inspire confidence in him. This would not call for "jollying," wining or dining. I should conduct myself so that he would be impressed with my interest in his welfare and make him feel that he could trust me implicitly; that what I told him he could bank on, and whatever opinion was given would be sincere.

I should give him the benefit of all doubts in the handling of his orders, charge him the lowest possible rate of interest, render his statement promptly and never keep him waiting for money he wished to withdraw.

My office, if I were a broker, would be equipped with a quotation board, so that the client could see how the market had ranged before he arrived on the scene. I cannot understand the fogyism of some houses who refuse to install a board. Go into an office where there is only a ticker and you will find two or three tired looking traders standing on one foot and leaning against the ticker. But where there is a board there is a large attendance, life and activity; a trader can see at a glance all preceding fluctuations and note the relative movement of the vari-

ous groups. A board is of great advantage.

If I were a broker it would be my aim to treat the ten-share trader with the same courtesy and consideration as I would show to a larger operator. I would thus be serving his interest as well as my own. His ventures would be of as great import to him as the five hundred share orders of the larger traders and I would realize that to help and encourage him would probably lay the foundation for many years of his patronage. I should tell him frankly that he must feel free to call upon me for advice and assistance, but that he could not look to me for "sure things" as the possession of these would make me independent of the brokerage business.

I would see that the execution of orders was handled in a most expeditious way and to the client's satisfaction. I would also make it my business to see that there was no unnecessary delay in securing quotations. It is said that brokers are dependent upon the pages and doorkeepers on the floor for quotations; unless these functionaries are liberally tipped clients are obliged to wait ten or twenty minutes for what should take two minutes. If this is the case I should spend a few dollars and get what is due my clients, even if I had to submit to a lot of petty grafters.

In a word, I should give my customers SERVICE in exchange for their patronage, take a personal interest in their welfare, be sincere in my recommendations, and sound in my methods of conducting the business.

I should put myself in the client's place and give him just what I should desire if our positions were reversed.

Such is my ideal of a broker.

Low-Priced Stocks

By THOS. GIBSON

ONE thing which operates in the public mind against purchases of low-priced stocks is the lack of income return. Also most speculators have a tendency to revert to past records. "This security has reached the highest point in its history" or "It is as high as it went last year." It requires but a little reflection to see the fallacy of this method of defining mechanical limits. The question is not at all as to how low or how high the stock has been in the past, but of its present value and future prospects. It is not so very long ago that Union Pacific sold below $10 a share, but when the stock had recovered to, say, 30, there is no reason to believe that the public attitude was not the same as to-day; 30 was a dizzy height and 40 was a joke. But what became of the bears at 30 and 40? And this does not apply specifically to Union Pacific, but to practically every high-priced security on the list.

The extent of advance from low prices which may have been established without reason or warrant is also frequently given more consideration than is deserved. I remember that in 1904 few brokers or advisers had the temerity

to advise purchases of U. S. Steel stocks. After Steel preferred had advanced from 49 to around 65, it was found that practically every brokerage house in the city had a surplus of short commitments in the stock on its books. The mistaken operators who persisted in a bearish attitude toward Steel preferred at 65 or at 75 simply figured that it had "gone up enough," without consulting the present or, what is more important, the potential value of the security. If you can satisfy yourself that a certain stock selling at 50 is worth 100 or is going to be worth 100, you need not be concerned about the fact that it has never sold above 50. To 100 it will go, if your deductions are correct, no matter how many records are smashed on the way up. Statistics have their uses, but they are so generally abused that I sometimes think we would all be better off if figures could be erased from both our records and our memories, so we would be compelled to look at what a thing was worth before we bought it.

There is still another mental but closely related phase which militates against prices at present. We are making too many odious comparisons. The reports which are now forthcoming are not only records of what is past, but records of a panic year compared with a banner year. We find the margin of safety much reduced in many stocks by comparison with this factor a year ago. If in 1907 we had observed that the margin of safety in a certain preference was 20% we might have been alarmed because of fears that this margin would be totally eliminated. We were on the back track. But to-day we may confidently buy that same security with its margin of safety reduced to 10% because we are facing a constructive future in which there is little danger of a further reduction of this margin and every reason to anticipate improvement.

Union Pacific, Atchison and a host of other securities passed through their baptism of fire a few years ago. When the recuperative power of the country and the natural accretion of values began to overcome the errors, accidents or manipulation which caused the downcome, there were not wanting cynical people who looked upon the rising prices as abnormal. The late Mr. Weirshoeffer called Atchison "a streak of rust across a desert" and sold it short. The price at the time was about $8.

All of which is intended to lead up to the opinion that many of the low-priced issues of to-day may, and probably will, be the features of the future. In years to come such stocks as Pennsylvania will disappear into tin boxes as Lackawanna did and some security which is kicking about the street now will be whooping things up and entertaining the chairwarmers in brokerage offices with moving pictures on the blackboard. It needs only confidence in our resources and in the integrity of purpose and ability of our financiers or, lacking the last-named factor, confidence in the ability of our legislators to insist upon correct methods, to see that the Erie or the Alton of today will become the Union Pacific or the Reading of to-morrow.

Bond Formulas.*

WHAT must be paid for bonds amounting to $10,000 maturing in ten years with 4 per cent. interest, to net 6 per cent., and give the formula by which you arrive at the figures?

The question does not mention whether interest is to be paid annually, semi-annually, or quarterly, which makes a difference in the result. If annually, the price to be paid is $8,527.98; if semi-annually it is $8,512.25.

The process is as follows, at annual interest:

a. Add to $1 its net income for one period. 1 + .06 = 1.06.

b. Multiply this by itself till you have used it as a factor as many times as there are periods (10). 106 × 1.06 × 1.06 × 1.06 × 1.06 × 1.06 × 1.06 × 1.06 × 1.06 × 1.06 = 1.790847 ....

c. Divide 1 by the result of *b.* 1 ÷ 1.790847 = .5583948 ....

d. Subtract the result of *c* from 1. 1.0000000 — .5583948 = .4416052.

e. Multiply this by the difference between the cash interest and the net income (6 — 4 = 2). .4416052 × 2 = .8832104.

f. Divide this by the net income rate (6). .8832104 ÷ 6 = .1472017.

g. This last result is either premium or discount. As the net income rate is larger than the cash interest, it must be discount. Therefore it is to be subtracted from $1. 1. — .1472017 = .8527983, which is the value of $1 on the proposed terms.

h. The value of $10,000 of bonds is 10,000 times as much, or $8,527.98.

To prove that this is correct, take the first year's income. 6% of

$8,527.98, or	$ 511.68
and from it subtract the cash interest	400.00
and the remainder	$ 111.68

is the appreciation caused by the bond approaching maturity.

Add this to	8,527.98
and we have	$8,639.66

as the value of the bond when it has only nine years to run.

Again. Compute a year's interest on this principal, and repeat the process, until at maturity the value is found to be $9,999.99, and the amount paid to redeem it is $10,000. The odd cent is due to the fact that in the orignal price about 3 mills were saved to the purchaser at the "nearest cent." You have thus had 6 per cent. interest continuously on the amount invested.

The work of multiplying 1.06 by itself 9 times and then dividing $1 by the product is very tedious. It is immensely shortened by the use of logarithms. Simply take the logarithm of 1.06, multiply it by 10, subtract that from zero, and search in the book of logarithms for the corresponding number, which is at once found to be .5583948.

Algebraically expressed, the formula is much simpler. Let *c* represent the cash interest received periodically on each unit of par, *r* the rate of net income on each unit invested, *n* the number of periods, then the premium or discount.

PRESENT VALUE OF BONDS.

Problem.—What can I pay for a 6 per cent. U. S. Bond maturing in 10 years, so that my investment will yield to me 4 per cent. interest payable semi-annually?

* From "Business Short Cuts," Bookkeeper Pub. Co., Detroit.

Rule.—Divide the compound interest on $1.00 at the required rate for the given time by the regular rate; multiply the quotient by the interest on the bond for one year; to the product add the face value of the bond and divide the sum by the compound amount of $1.00 at the required rate for the given time.

Explanation of the Rule.—(a) There are two methods for the solution of problems relating to stock and bond investments, viz., the Simple Interest Method, and the Compound Interest Method. (b) The government uses the Compound Interest Method. (c) This method allows the investment and each payment of interest on the bond to be compounded, at the investor's rate, to maturity. (d) Each payment of interest is compounded at the end of each bond interest interval, while the investment is compounded at the end of each of the intervals agreed upon in contract. (e) If there be no such agreement, the investment is compounded at the end of each of such intervals as are equivalent to a bond interest interval. (f) Whenever the bond interest interval and the investment interest interval are of unequal duration, both are reduced to respectively equal intervals and the interests calculated accordingly. (g) The principle involved in the compound interest method is: Any payment of interest is worth the same interest rate to the investor as he receives from the entire investment. (h) The *final value of the interest* payments at the maturity of the bond is the sum of the compound amounts of the payments at the investor's rate. (i) The *maturity value* of the bond is evidently the sum of the face value of the bond and the final value of the interest payments. (j) Then, in accord with above principles the *investment* is the compound present worth at the investor's rate per interval, of the maturity value of the bond.

[Ed. Note.—The use of a Bond Table enables one to arrive at these figures in a moment.]

—Chicago *Tribune.*

Correct Execution of an Assignment on a Stock Certificate

How to Sign and Fill in so as to Avoid Trouble—Safety and Economy in Shipping

By an EX-CASHIER

THERE is a right and a wrong way of doing the necessary with stocks and bonds and the reason so many people make mistakes and are subjected to delay and anoyance in such matters is probably because no one has ever taken the trouble to publish full directions.

In large houses, scarcely a day passes without some "fool mistake" being made by a client who forwards his certificate, in a thoroughly balled-up condition, to be sold, or used as collateral. If there are forty ways of doing the thing right, some one is sure to find one wrong way of twisting things on the back of a bond or stock certificate so that it is rendered unavailable. The houses themselves are largely to blame for this. Every well regulated house should issue to its clients a printed folder giving full and complete instructions. The cost would be trifling and the saving of money and trouble considerable.

As an illustration let us imagine that J. H. Smith, an out-of-town client of a New York Stock Exchange house, wishes to buy 100 shares of Steel common and pay for it in full. He writes his order to the house, encloses a New York draft for the approximate amount and adds these instructions: "Transfer the certificate to my name and forward to me."

The broker is obliged to pay ¼% more for the stock than the amount called for by the check, so he sends Smith a memo. showing $25 due, with this message: "Kindly give us your full first name."

Smith is a facetious chap and replies, "Enclosed check. My first name is John—full or sober."

The broker then sends the 100 shares to the transfer office and the next day recives a new certificate stating that John H. Smith is entitled to 100 shares of common stock in the U. S. Steel Corporation.

Upon receiving the certificate, Smith locks it away in his safe deposit box and in a few months, wishing to dispose of it, gets it out, dashes his name on the back—J. H. Smith—and sends it on to be sold.

Now a certificate should be endorsed on the back exactly as it appears on the face; hence the broker cannot use it until it is re-signed John H. Smith underneath the first signature. This requires a return of the stock and by the time it again reaches Wall Street the price has declined two points, costing Smith $200 for his ignorance of a small detail.

Some houses would sell the stock when first received and send Smith a separate Power of Attorney for proper signature, holding the certificate in the interim. There is always a risk in such transactions. Smith may die; the stock would then be tied up for a considerable time. Many companies refuse to recognize a separate Power of Attorney so this method cannot be followed in all cases.

On most stock certificates there is printed the following notice, which the majority entirely overlook: *The signature to this assignment must correspond*

with the name written upon the face of the Certificate in every particular, without alteration or enlargement, or any change whatever.

There are three parts or sections of this assignment. The first part executed should be the Signature. The proper place for which is next to the bottom line and in front of the letters L. S. The date of execution should then be entered in its proper place and a witness (before whom the certificate has been executed) should sign his name under the words "In presence of."

This is all that is required to make the certificate negotiable among those who know the owner's signature. But the certificate is to be circulated as though it were a dollar bill among brokers and others, who *do not* know or recognize the signature; hence Smith's broker must guarantee his signature. This is done by signing the firm's name below Smith's Some concerns use a rubber stamp "Signature Guaranteed"; below this imprint the firm name is signed.

When a certificate has been put in the above shape, its ownership passes to whomever it may be delivered. In this condition it is available as collateral for a loan, or it may be deposited as margin. If lost, it could be negotiated by the finder, but the owner would be able to stop its transfer on the books of the company by simply notifying the transfer office giving the certificate number, and stating in whose name the stock stood.

The top section of the assignment on the back of a certificate is used only when it is to be transferred into another name; that is, when a new certificate is to be issued.

Note the difference between transfer of the certificate and change of ownership; it is *not* necessary to fill in the top blank line when a certificate is merely changing hands. This mistake causes endless trouble.

Some of the errors in this direction would seem to indicate a lack of intelligence on the part of stockholders, but in reality they are due to carelessness. For instance, many people when forwarding stock to their brokers fill in their own names after the words "transfer unto." It must be obvious that a certificate standing in the name of John Smith cannot be sold, assigned or transferred to the same individual. Smith cannot sell to himself. It is the business of the person who wishes a new certificate issued in his own or another's name, to fill in this part of the assignment. All others should leave the assignment blank.

A word as to the proper way in which a certificate should be filled in for transfer. If it is a 100-share certificate, and the buyer wishes 50 shares issued in his name and 50 in the name of his wife, it should appear thus:

For Value Received .... hereby sell, assign and transfer unto ......
.... shares of the Capital Stock represented by the within Certificate, and do hereby irrevocably constitute and appoint ....
Attorney to transfer the said stock on the books of the within named Company with full power of substitution in the premises.

Dated, ————————————, 190 .

....(L. S.)

In presence of

—..............................

Official Form of Assignment on Back of Stock Certificate

William H. Jones, 98 Pearl St., N. Y., 50 shares; Annie C. Jones, 44 W. 58th St., N. Y., 50 shares.

If it is to be in one certificate in the name of Mr. Jones, it should read:

William H. Jones, 98 Pearl St., N. Y., 100 shares.

The center of the assignment provides a place where the owner of the certificate may appoint an attorney for the purpose of transferring the certificate. It reads:

"and do hereby innevocably constitute and appoint ———————— Attorney, etc.

The advantage of this is chiefly when certificates are to be sent by registered mail or by express with a low valuation.

This appointment gives the Attorney no other power except to transfer the stock or to appoint another attorney in his own place. The attorney does not attain ownership of the certificate. He is simply appointed to do a certain thing, and this power is retained by him until he either transfers the stock or signs what is called a Power of Substitution. The latter leaves open the appointment of another attorney by him or anyone who chooses to avail himself of the privilege.

The Power of Substitution reads as follows:

I hereby irrevocably constitute and appoint ———————— Attorney, my substitute to transfer the within named stock under the foregoing power of attorney, with like power of substitution.

This is rubber-stamped on the blank space below, and is signed, dated and witnessed the same as the main assignment. If executed by an unknown individual the signature must also be guaranteed by a brokerage firm.

Now let us illustrate the practical side of this seemingly complicated subject. John Smith, living out of town, has sold this 100 shares of Steel (worth $5,000 in round figures), and wishes to send it to New York in the most economical way. He finds that the rate charged by the express companies is 25c. per $1,000 valuation; the cost, therefore, would be $1.25. He does not wish to risk sending under a $1,000 valuation, because if the stock were lost in transit the express company would be liable only for that amount.

He inquires of his bank and finds that by filling in the name of his broker *as Attorney*, he fixes the stock so that no one but that particular broker can use it. Thus he is free to send it by registered mail, with full protection and at a cost of only ten cents.

Upon receipt of the certificate the broker stamps a Power of Substitution below the printed form. This he executes, *leaving the Attorney space blank.* The certificate thereby again becomes negotiable.

Irrevocable means incapable of being revoked or repealed—unalterable.

Certificates that are sent back and forth in this way frequently, have several Powers of Substitution stamped upon them, each signed, dated and witnessed. On all except the last the Attorney's name is filled in. The fact that one of these Powers is "open" makes the certificate negotiable or as it is called among brokers, "A Good Delivery."

The New York Stock Exchange has established certain Rules for Delivery, the principal ones of which are given below. Many of these relate to dealings between brokers, but their presentation will doubtless aid in clarifying a part of the Street's machinery. The rules will be found on the next page.

Delivery Rules of the New York Stock Exchange.

1. Securities admitted to dealings upon the New York Stock Exchange, Registered and Transferable in the Borough of Manhattan, City of New York, in conformity with the requirements of Section 1 Art. XXXIII of the Constitution, are a delivery:

(*a*) Certificates of Stock for 100 shares or odd lots aggregating 100 shares, with irrevocable Assignment for each Certificate, and in the name of a member or his firm, registered and doing business in the Borough of Manhattan. Certificates for the exact amount or aggregating the amount of an odd lot.

(*b*) Or with irrevocable Assignment witnessed by, or correctness of signature guaranteed by such member or his firm.

(*c*) Or with irrevocable Assignment and Power of Substitution and a separate guarantee by such member or his firm, for *each* Power of Substitution.

(*d*) Coupon Bonds payable to Bearer, in denominations of $500 or $1,000 each, with proper coupons of the bond's number securely attached. Small bonds, under $500, only in special transactions.

The money value of a missing coupon may be substituted only with the consent of the Committee on Securities for each delivery.

(*e*) Registerable Coupon Bonds in denominations of $500 or $1,000 regisered to Bearer, or when transfer books are closed, with an Assignment to Bearer for each bond by a member or his firm or witnessed by a member, or the correctness of the signature guaranteed by a member or his firm, registered and doing business in the Borough of Manhattan.

(*f*) Registered Bonds in denominations not exceeding $10,000 properly assigned.

2. Securities contracted for in amounts exceeding 100 shares of Stock or $10,000 in Bonds, may be tendered in lots of 100 shares or Stock or $10,000 in Bonds, or any multiple of either, and must be accepted and paid for as delivered.

3. Securities with Assignment, or Power of Substitution, signed by an Insolvent, are not a delivery. During the close of transfer books, such securities held by others than the insolvent, are a delivery if accompanied by an affidavit for each certificate or bond, that said securities were held on a date prior to the insolvency.

Securities with Assignment or with Power of Substitution, guaranteed by a member or his firm, suspended for Insolvency, are not a delivery and must be guaranteed by a solvent member or his firm.

4. Securities in the name of a deceased person, or a firm that has ceased to exist are not a delivery, except during the closing of the transfer books. The Assignment must be proved or acknowledged before a Notary Public. (Form No. 3, for witness 10 and 11.)

Securities with either the Assignment or any Power of Substitution witnessed by a deceased person are not a delivery.

5. Securities assigned, or a Power of Substitution by a firm that has dissolved and is succeeded by one of the same name, are a delivery, when the new firm shall have signed the statement "Execution guaranteed," under a date subsequent to the formation of the new firm.

6. Securities in the name of a corporation or an institution or in a name with official designation, are not a delivery, unless Assignment is sworn to before a Notary Public. The Notary Public must also make a deposition that he has seen the minutes of the institution authorizing the person or persons signing to make the Assignment. (Forms 8 and 9.) A certified copy of the resolutions of the proper authorities of the Company in whose name the security stands, authorizing the Assignment, and giving date of adoption, must accompany the security.

7. Securities with an Assignment or a Power of Substitution signed by Trustees, Guardians, Infants, Executors, Administrators, Assignees and Receivers in Bankruptcy, Agents or Attorneys are not a delivery.

8. Securities assigned by a *Married Woman* are not a delivery. A joint assignment and acknowledgement by husband and wife before a Notary Public, will make such security a delivery only *while the transfer books are closed.* (Form No. 4.)

9. Securities in the name of an *Unmarried Woman,* with the prefix "Miss," are a delivery without notarial acknowledgement, when signed "Miss."

10. Securities in the name of an *Unmarried Woman* (without the prefix "Miss"), or a *Widow* are a delivery only when the Assignment is acknowledged before a Notary Public. (Form No. 5.)

11. Securities of a Company whose transfer books are closed indefinitely for any reason, legal or otherwise, the Assignment and each Power of Substitution must be acknowledged before a Notary Public. (Forms Nos. 2, 3; for witness, 10 and 11.)

12. Securities in the name of Foreign Residents are not a delivery on the day the transfer books are closed for payment of a Dividend or Registered interest, *and reclamation can only be made on that day.*

13. Securities in the name of Foreign Residents must be accompanied by an acknowledgement before a United States Consul or J. S. Morgan & Co., London, when required by transfer agents.

Several Companies having transfer offices at Grand Central Station, New York, make this requirement.

14. Certificates of stock on which the name of a transferee has been filled in error, may be made a delivery during the closing of the transfer books by ruling of the Committee on Securities. Necessary form of release, cancellation and reassignment will be furnished on application to the Committee on Securities.

15. An endorsement by a member or his firm registered and doing business in the Borough of Manhattan, or the signature as a witness by such a member, of a signature to an Assignment or a Power of Substitution, is a guarantee of its correctness. Each Power of Substitution, as well as the Assignment, must be so guaranteed, or witnessed.

16. The Receiver of Stock may demand delivery by transfer when the transfer books are open, and must give ample time in which to make transfer. The Seller may demand payment for the securities at the time and place of transfer. The Seller may make delivery by transfer when personal liability attaches to ownership.

17. When a claim is made for a dividend on Stock after the transfer books have been closed, the party in whose name the stock stands may require from the claimant presentation of the certificate, a written statement that he was the holder of the Stock at the time of the closing of the books, a guarantee against any future demand for the same and the privilege to record on the certificate evidence of the payment by Cash or Due Bill.

18. *"Coupon Bonds issued to Bearer, having an endorsement upon them not*

properly pertaining to them as a security, must be sold specifically as 'Endorsed Bonds,' and are not a delivery, except as 'Endorsed Bonds.'"

Extract from Resolutions of Governing Committee, adopted May 23, 1883.

A definite name of a person, firm, corporation, an association, etc., such as "John Smith," "Brown, Jones & Co.," "Consolidated Bank," appearing upon a Coupon Bond, and not placed there for any purpose of the Company by any of its officers, implies ownership, and is an "Endorsed Bond" under the above resolution.

19. Any endorsement on a Coupon Bond, stating that it has been deposited with a State for bank circulation or insurance requirement, may be released and release acknowledged before a Notary Public; it will then be a delivery as a "Released Endorsed Bond."

"Rights" to Subscribe.

20. Assignments of "Rights," with the signature of the assignor witnessed and guaranteed in the same manner as other Assignments as provided in these rules, are a delivery:

(*a*) An Assignment of the "Rights" accruing on each 100 shares; or, Assignments of "Rights" on odd lots aggregating the "Rights" on 100 shares.

(*b*) An Assignment for the exact amount, or Assignments aggregating the amount, on a sale of the "Rights" accruing on an odd lot of stock.

21. Assignments of "Rights" in the name of a *Married Woman, Widow* or an *Unmarried Woman* are a delivery without notarial acknowledgement.

22. Assignments of "Rights" made by a deceased person or a firm that has ceased to exist are not a delivery, and must be taken back by the party delivering them.

23. Assignments of "Rights" signed by Trustees, etc., or for corporations, etc., are not a delivery, until passed by the Committee on Securities.

24. Assignments of "Rights," except those sold specifically for "Cash," can be delivered or demanded only on the date fixed for delivery by the Committee on Securities.

25. Due Bills for Assignment of Rights on borrowed stock must be redeemed on the date fixed for the delivery of Assignments of "Rights."

26. Due Bills for "Rights" accompanying stock, which by ruling of the Committee on Securities, does *not sell* "Ex-Rights" at the closing of the books, must be redeemed on the specific date fixed by the Committee on Securities. Such Due Bills if signed by a non-member, must be guaranteed by a member or a firm registered and doing business in the Borough of Manhattan.

27. Due Bills for "Rights," or an Assignment of "Rights," for all accrued "Rights" must accompany securities delivered on a time contract.

When the right to subscribe terminates before the maturity of a time contract, special ruling will be made by the Committee on Securities.

28. If default is made, "Rights" may be bought or sold for the account of the party in default, at the place in the Exchange where "Rights" are traded in.

Statistics of Business Failures

AND

How They Are of Use in Forecasting Business Conditions

By MARY B. SMITH

A Statistician Associated with Roger W. Babson

WHAT is the meaning of failure? An age old question is this, and one going deep down into philosophy for its answer. If we are pessimists, the significance of the thing is the same as the dark outlook on life in general; each separate failure only goes to prove the uselessness of the struggle. The fact that life goes on, and many times the failure is turned into a part of final success, is one of the best proofs of the wrong viewpoint of the pessimist, and one of the stepping stones that helps the man who looks upward and onward as he goes.

There are at least two kinds of optiwists in the business world, as every where, because all kinds and classes of men touch business somewhere, and although they sometimes seem a vast, toiling, fighting mass, yet in the same way that great individualities at the top turn entire financial tides by their personal view of affairs, so personalities less strong alone, give their stamp to combination and work one way or another, throughout the mass. The optimists are known by their enthusiasm, energy, confidence in ultimate good times and general willingness to go half way up the road to meet hem. As a class, both have these qualities, but the class divides according to their respective ways of looking at failures, and the statistics of failures.

In the one group we have the men who go into business, with small capital, little training, and inexperience; some of these make money always and are successful by means of luck and chance, in a most fortunate combination. They find no utility and little meaning in statistics, yet, even when they seem uniformly successful they belong to the same set against whom the rest of the business world needs protection. For among the men who start in this way are those who are most likely to add to these statistics another disaster of greater or less proportions. They are the optimists one should fear and are most to be feared at the critical periods when years of prosperity yield to less fortunate conditions.

On the other hand, in the second group we have the same faith in the forward movement of the business world from generation to generation, but it is a faith of larger understanding of the various difficulties in the way, the necessity for thought and work, and an appreciation of every improvement tending toward better methods and a more complete system in every office and workroom.

The evolution of the New England "Yankee," the Southern planter and the owner of the first railroad, has given the history of American Finance many wrecks and stormy passages. The country as a whole has seemed to belong to the optimist class above described, but such characteristics accompany youth the world over and perhaps the 1907 climax may find business men more ready than ever before to see the meaning and value of statistics.

For the statistics of failures are intended to be helpful in themselves and are published regularly for that disinterested purpose, by at least two large firms independently, and from them quoted, analyzed and used in various ways by

other journals and public and private interests. They can be helpful primarily in two ways. First, to give credit information, second to form a collection of data for study.

Where names and localities are published or available, the extension or safeguarding of credit may make these reports of immediate practical use; they thus serve to protect the community from further loss at the hands of individuals, firms, and corporations that have failed to meet their obligations.

But more important than the defence against others, is the province of statistics pure and simple. The new life of business America is looking into things, asking for explanations and causes, searching for facts and studying the relation of statistics and events. The best optimist is the one who, neither discouraged by failures nor ignoring their experiences, studies them as just so many mistakes he should know and avoid. He is not afraid of figures, for the simplest ones he can study himself and those that take more time, he can have analyzed and reported upon by others.

In the first place, every great crisis in business has been made known to the public by one or more failures, sometimes accompanied by the exposure of dishonest methods, sometimes by political or national calamity, more often by the failure of some bank or a number of banks in endeavoring to finance industries or new corporate undertakings. So failures —that is, large, single failures—stand as signals of sharp crises, and the beginning of depression. They may be followed by other large failures and many small ones, so quickly that the total of both number of failures and liabilities for the panic year is swelled as in 1893, above the limits of other years just preceding or following it; or the failure record may move slowly and more than a year be needed for any great change. Thus a second point may be shown by any Table of Failure Statistics: that is, we can see there the duration of the hard times following crises.

Failures in the United States

Compiled from Figures Published by R. G. Dun & Co.

TABLE I.

Year.	Number of Failures.	Liabilities expressed in Millions.	Year.	Number of Failures.	Liabilities expressed in Millions.
1857..........	4,932	$291.8	1883..........	8,184	172.9
1858..........	4,225	95.7	1884..........	10,968	226.3
1859..........	3,913	64.4	1885..........	10,637	124.2
1860..........	3,676	79.8	1886..........	9,834	114.6
1861..........	6,993	207.2	1887..........	9,634	167.6
1862..........	1,652	23.0	1888..........	10,679	123.8
1863..........	495	7.9	1889..........	10,882	148.8
1864..........	520	8.6	1890..........	10,907	189.9
1865..........	530	17.6	1891..........	12,273	189.9
1866..........	1,505	53.8	1892..........	10,344	114.0
1867..........	2,780	96.7	1893..........	15,242	346.8
1868..........	2,608	63.7	1894..........	13,885	172.9
1869..........	2,799	75.0	1895..........	13,197	173.2
1870..........	3,546	88.2	1896..........	15,088	226.1
1871..........	2,915	85.2	1897..........	13,351	154.3
1872..........	4,069	121.1	1898..........	12,186	130.7
1873..........	5,183	228.5	1899..........	9,337	90.9
1874..........	5,830	155.2	1900..........	10,774	138.5
1875..........	7,740	201.0	1901..........	11,002	113.1
1876..........	9,092	191.1	1902..........	11,615	117.5
1877..........	8,872	190.7	1903..........	12,069	155.4
1878..........	10,478	234.4	1904..........	12,199	144.2
1879..........	6,658	98.1	1905..........	11,520	102.7
1880..........	4,735	65.8	1906..........	10,680	119.2
1881..........	5,582	81.2	1907..........	11,725	197.4
1882..........	6,738	101.5			

As examples of such reading, note in the above table the year 1857, both for number and liabilities. Here the crisis is indicated in the amount of liabilities, while 1858 shows a large number of failures, but a reduction in liabilities. The next years show depression by a relatively large number of failures, but they are of lessening average amount of liabilities.

That failure statistics may indicate not only the length but the general character of a depression is proved particularly well from the course they take after the crisis year of 1873 to the height of the depression in 1878 and for a shorter period from 1893 to the culminating year 1896. From this table it is evident also that the number of failures is often larger toward the end of the depression than during the crisis year, but the average of liabilities per failure is less.

TABLE II.

Year.	Number of Failures.	Liabilities.	Average Liabilities.	Liabilities per Capita of Population.	Liabilities per Firm in Business.
1875........	7,740	$201,060,333	$25,960	$4.56	$339.87
1876........	9,092	191,117,786	21,020	4.23	305.15
1877........	8,872	190,669,936	21,491	4.11	302.60
1878........	10,478	234,383,132	22,369	4.92	259.49
1881........	5,582	81,155,932	14,530	1.58	108.65
1882........	6,738	101,547,564	15,070	1.93	129.94
1883........	9,184	172,874,172	18,823	3.22	210.23
1884........	10,968	226,343,427	20,632	4.12	261.94
1885........	10,637	124,220,321	11,678	2.21	137.28
1886........	9,834	114,644,119	11,651	2.00	124.60
1893........	15,042	340,779,889	22,751	5.22	290.65
1894........	13,885	172,992,856	12,458	2.55	155.25
1900........	10,774	138,495,673	12,854	1.81	119.63
1901........	11,002	113,092,376	10,279	1.45	94.33
1902........	11,615	117,476,769	10,114	1.49	94.85
1903........	12,069	155,444,185	12,879	1.94	122.33
1904........	12,199	144,202,311	11,820	1.76	111.33
1905........	11,520	102,676,172	8,913	1.24	78.75
1906........	10,682	119,201,515	11,159	1.41	86.52
1907........	11,725	197,385,225	16,834	2.31	139.75

From this second table we have another view of the usefulness of failure statistics. As in Table I, the panic years are plainly marked by the ratio of defaulted liabilities to the total number of firms in business, but we can learn from it something also of business conditions, for we find that up to 1878 the possibilities of loss—if we may put the matter as directly as that—the ratio of liabilities to the number of firms actually in business was large or increasing from year to year, as again frim 1893 to 1896; while the effect of the crisis of 1903 gave place very quickly to prosperous conditions not equalled in this respect for thirty years. This table also gives a very valuable measure by which we see that such numbers as 11,002 failures in 1901 and 10.428 in 1878 marked two degrees of conditions more widely different than they would seem at first glance; and that the high number 11,725 of 1907, is a mark of conditions much less severe than the 7,740 of 1875. The ratio of liabilities to population tells practically the same story, in the lessening amount of loss per capita.

As this paper is undertaken to show the utility and meaning of failure statistics, not to the statistician but to the average man of active commercial, mercantile or financial interests, the tables given are samples of those we have easily compiled from published figures. The points suggested as the first lines of attack on them are such as would come to the mind of any one familiar in a practical, every day way with the trend of things for a few years back.

The study of the past, however interesting as pure history, is to be regarded here only as a means of understanding the significance of current changes and give us entire information, because a true study of statistics goes no further than absolute knowledge, the points just shown bring us close to our every day

the points above recalled are a few of the leaders good to have at hand when the present day figures are brought to

The year 1907 is of central interest to us all. It is now known as a panic year, and events of the months following October with its signal failures of certain New York banks, becomes a part of history closely joined to present problems. The questions immediately asked, and to a large extent still unanswerable, turn instinctively almost to the history of other crises. While it is true that not one,, but all factors, must be weighed together in estimating the comparative position of 1907 among critical periods, the statistician must find something of value in the statistics of failures.

Statistics of the year are available in different forms. Divided into quarters, or into months we may find meaning in the year's record on lines similar to those used for the annual tables. We give below a table of such a type.

	1903.		1904.		1905.	
Month.	Number.	Liabilities in Millions.	Number.	Liabilities in Millions.	Number.	Liabilities in Millions.
January	1269	$12,978	1406	$18,483	1222	$10,417
February	1030	10,907	1003	15,812	1013	9,780
March	901	10,458	935	13,770	1208	9,964
April	750	11,811	1013	13,136	833	8,056
May	943	12,314	997	9,817	860	8,907
June	735	8,326	860	8,469	1074	8,777
July	915	16,751	1107	8,812	786	6,148
August	812	10,877	900	10,491	851	6,140
September	821	7,229	962	12,864	959	8,039
October	1086	18,387	888	10,525	852	6,751
November	1162	16,422	864	8,535	817	8,866
December	1645	18,978	1264	13,481	1045	10,823

	1906.		1907.		1908.	
Month.	Number.	Liabilities in Millions.	Number.	Liabilities in Millions.	Number.	Liabilities in Millions.
January	1112	$11,952	1355	$13,628	1949	$27,099
February	938	10,859	924	10,283	1621	27,064
March	1052	10,949	853	8,163	1339	21,542
April	793	8,059	799	11,082	1309	20,316
May	899	12,992	857	9,965	1379	13,643
June	818	7,850	815	16,445	1112	14,708
July	743	6,919	777	12,334		
August	788	8,821	850	15,197		
September	774	6,255	856	18,935		
October	838	10,553	1139	27,414		
November	885	11,980	1180	17,637		
December	1047	12,006	1316	36,296		

Without going too far back, the preceding tables give examples of what may serve as types of years, that is, 1903 had the so-called "rich man's panic," beginning for the stock market in the summer of that year and continuing in reaction—well, how far? See if the table given does not indicate it, very clearly. In the first place, such normal years as 1905 or 1906 show heaviest liabilities from October to March, any increase between these times coming just before or after the end of the fiscal year. The presence of business trouble is indicated in July of 1903, and while the number of failures is not greatly increased compared with other months, we find the amount of liabilities very much so; moreover, the increase and this ratio are maintained, practically unbroken for ten months. Noting the midwinter figures here, we find liabilities greater in proportion to number of failures than in other years for the same time. While this table cannot of itself

use of such figures. Without knowing anything of the exact causes, a man with these figures at his hand could not have failed to begin to think a little when in the report for June, 1907, liabilities ran over 40 per cent. higher than in 1906 and nearly as much higher than 1905, with the number of failures little if any greater. As the months came in one after the other, and the month of September reached an aggregate of nearly nineteen millions of dollars as against $8,039,947 for the same number of failures in September, 1905, surely the change in ratio could have told something very definite as to the approach of bad times. Average liabilities per failure by mental computing, show the crisis month to have been November, (average liabilities $32,026.80, as compared with December, $30,760,064) for we maintain that the smaller number, with heaviest liabilities, marks the financial climax; that is, the break, panic, signal failures oı whatever openly declares trouble and by the quickest roughest estimates the course of affairs can be very plainly traced by having the figures all at hand.

Down to the reports for the latest months of 1908, yet given, the course of depression is well indicated by this mere simple reading of the figures. While to obtain accurate comparisons of the progress of this depression as compared with others, a little more close calculating of the percentage of gain or loss in number, in liabilities per firm in business, or per firm failing, requires a little extra outlay of time and attention, yet yields returns in greater light in different aspects of the situation. Figures such as these will bear constant watching, and a man should prefer to have his own eye on the clouds ahead, rather than trust entirely to a less interested authority.

That this subject of failure statistics is gaining in recognized importance as a help to clear understanding of fundamental conditions and the trend of commerce and finance is shown in the attention being given to it, since the record of 1907 came in. As a result of compiling their large collection of data, the Bradstreet Company have furnished tables summing up their analysis of the cause of failures, in a way that makes the reading of the daily, weekly and other reports of added interest. Classifying the causes of commercial mortality, it is shown that certain faults of the men involved, constitute the principal rocks of disaster. It is easy to say in time of busiiness stress that incompetence, inexperience, lack of capital, too easy extension of credits, private speculation and extravagance, laziness or neglect of business, are personal faults, and to give them as reasons for the failure. As every commercial failure involves loss to others than those failing, the presence in business of irresponsible management is always a risk to be given its reckoning. Precisely as one would look out for competition, loss by fire, earthquake, crop failure or other specific conditions, one would fear men of doubtful standing. It is necessary to have a rating of the individual concerns in our debt in order to avoid both the direct and indirect loss caused by the failures of others and the destruction of confidence following. For this purpose we can make good use of casual tables as are given by Bradstreet:

Percentage of Number of Failures and Liabilities Classified as to Causes.

UNITED STATES PER CENT.

	Number				Liabilities.			
Failures due to	1907	1906	1905	1904	1907	1906	1905	1904
Incompetence	22.6	22.3	24.4	23.1	8.9	15.5	21.6	14.1
Inexperience	4.9	4.9	4.8	5.1	3.2	2.2	2.1	3.2
Lack of capital	37.1	35.9	33.4	32.2	18.4	30.9	33.0	31.8
Unwise credits	2.3	2.6	3.5	3.4	3.1	2.1	4.2	4.8
Failures of others	1.4	2.0	2.2	2.5	3.3	8.8	4.5	8.2
Extravagance	.9	1.0	1.1	.8	.5	.9	1.2	.7
Neglect	2.5	2.2	2.9	3.1	.5	1.5	1.1	1.6
Competition	1.2	1.0	1.5	1.3	.4	.4	.9	1.0
Specific conditions	16.3	17.3	16.3	19.1	51.7	17.9	15.5	22.7
Speculation	.7	.8	.7	.8	4.9	3.6	7.7	5.3
Fraud	10.1	10.0	9.2	8.6	5.1	16.2	8.2	6.4

For example, if 1907 showed, as is claimed, 37.1 per cent. failure due to liss of capital, and if figures show that this cause is increasing year by year it means clearly that the beginnings of new enterprises must be increasingly well supported, as it grows more difficult to add to inadequate capital when money rates are high or competition makes it practically imperative to expand. As inexperienced and comparatively incompetent heads must continually jiin the ranks, constant watching of the details of failure statistics is a practical necessity for them as well as for those whose money is invested in their interests.

As Bradstreet's tables exclude all losses except those strictly commercial according to their interpretation—that is, those failures involving loss to creditors of individual firms, or corporations engaged in legitimate mercantile occupations—they cannot be compared, figure by figure, with the tables from other sources. But believing that the figures due to failures in insurance, real estate, brokerage, etc., do have a distinct effect upon general business conditions, we personally include them in our study of the whole subject. Certain facts, however, included in the very valuable report before alluded to, should be mentioned here as bearing on our question. One of these we have already suggested; namely, that as the country advances, statistics furnish evidence that the commercial death rate is growing less. The decrease is as yet not one-half of one per cent., the rate being now reduced from 1½ per cent. maximum to something under one per cent. Of course we should like to believe that this is permanent improvement in business intelligence, but it is one of the points to be watched as years go on.

A table compiled in this report, giving the classification of failures by credit ratings, liabilities and capital employed is herewith reproduced.

Failures in the United States and Canada,

CLASSIFIED ACCORDING TO CREDIT RATINGS, TO LIABILITIES AND TO CAPITAL EMPLOYED.

	1907		1906		1905		1904		1903	
Credit Ratings of Those Who Failed.	No.	P. ct.	No.	P. ct.	No.	P. ct.	No.	P. ct.	No.	P. ct.
Total number failures, U. S. and Canada......	11630	100.	10624	100.	11397	100.	11592	100.	10733	100.
Number failing which had very moderate or no credit rating	10573	90.9	9615	90.5	10417	91.7	10598	91.4	9290	86.6
Number failing rated in good credit	914	7.9	933	8.8	863	7.6	888	7.7	1269	11.8
Number failing rated in very good credit, or higher	143	1.2	76	.7	87	.7	106	.9	174	1.6
Liabilities of Those Who Failed.										
Total number failures, U. S. and Canada......	11630	100.	10624	100.	11397	100.	11592	100.	10733	100.
Total with less than $5,000 liabilities	6933	59.6	6660	62.7	7426	65.2	7281	62.8	6817	63.5
Total with $5,000 liabilities and over	4697	40.4	3964	37.3	3971	34.8	4311	37.2	3916	36.5
Total with $5,000 to $20,000 liabilities	3360	28.9	2978	28.	3008	26.4	3143	27.1	2787	26.
Total with $20,000 to $50,000 liabilities	751	6.5	642	6.	609	5.4	725	6.3	649	6.
Total with $50,000 to $100,000 liabilities	276	2.3	193	1.8	199	1.6	230	2.	224	2.1
Total with $100,000 to $500,000 liabilities	257	2.2	131	1.3	128	1.1	182	1.6	225	2.1
Total with $500,000 liabilities and over	53	.5	20	.2	27	.3	31	.2	31	.3
Total with $1,000,000 liabilities and over........	35	.3	6	.06	12	.1	11	.1	12	.1

Capital Employel by Those Who Failed.	1907		1906		1905		1904		1903	
Total number failures, U. S. and Canada	11630	100.	10624	100.	11397	100.	11592	100.	10733	100.
Total with $5,000 capital or less	10469	90.	9723	91.5	10449	91.7	10488	90.5	9668	90.1
Total with over $5,000 and less than $20,000	764	6.6	642	6.	678	6.	722	6.3	681	6.3
Total with $20,000 and less than $50,000	225	1.9	173	1.7	166	1.4	237	2.	209	2.
Total with $50,000 and less than $100,000	83	.7	50	.5	53	.5	84	.7	89	.8
Total with $100,000 and less than $500,000	75	.7	34	.3	48	.4	59	.5	75	.7
Total with $500,000 and over	14	.1	2	.02	3	.02	2	.02	11	.1
Total with $1,000,000 and over	12	.1	2	.02	..	....	2	.02	..	...

	1902		1901		1900	
Credit Ratings of Those Who Failed.	No.	P. ct.	No.	P. ct.	No.	P. ct.
Total number failures, U. S. and Canada	11068	100.	12027	100.	11249	100.
Number failing which had very moderate or no credit rating	9905	89.5	10705	89.	9531	84.7
Number failing rated in good credit	1064	9.6	1214	10.1	1558	13.9
Number failing rated in very good credit, or higher	99	.9	108	.9	160	1.4
Liabilities of Those Who Failed.						
Total number failures, U. S. and Canada	11068	100.	12027	100.	11249	100.
Total with less than $5,000 liabilities	7480	67.6	8009	66.6	7394	65.7
Total with $5,000 liabilities and over	3588	32.4	4018	33.4	3855	34.3
Total with $5,000 to $20,000 liabilities	2699	24.4	2995	24.9	2917	26.1
Total with $20,000 to $50,000 liabilities	586	5.3	663	5.5	649	5.8
Total with $50,000 to $100,000 liabilities	192	1.7	182	1.5	216	1.9
Total with $100,000 to $500,000 liabilities	101	.9	157	1.3	158	1.4
Toal with $500,000 liabilities and over	10	.1	21	.2	15	.1
Total with $1,000,000 liabilities and over	5	.05	7	.06	10	.08
Capital Employed by Those Who Failed.						
Total number failures, U. S. and Canada	11068	100.	12027	100.	11249	100.
Total with $5,000 capital or less	10289	93.	11022	91.6	10596	94.2
Total with over $5,000 and less than $20,000	527	4.7	760	6.3	374	3.4
Total with $20,000 and less than $50,000	161	1.5	156	1.3	160	1.4
Total with $50,000 and less than $100,000	51	.5	54	.4	62	.5
Total with $100,000 and less than $500,000	39	.3	34	.3	51	.4
Total with $500,000 and over	1	.01	1	.01	6	1.05
Total with $1,000,000 and over	..	....	1	.01	1	.01

The point is made that men of small capital were less hard hit in 1907 than were those having more credit ability. This point, however, seems to us to have not so much weight as one might think. Although 59.6 per cent. of all the failures in 1907 had liabilities of less than $5,000, as against 62.7 per cent. in 1906, this lower rate is due to the fact that 1907 was a crisis year and, therefore, that it had a few large failures—twelve, to be exact—for a capital of over $1,000,000. That is, it is a purely mathematical over-weighting of large interests as would be expected of a crisis year, rather than any actual escape for the small firm from the results of hard times.

A comparison with 1903 shows the proportion of large failures as three to one against 1907, but we must remember that the succeeding months of 1908 should be taken into this reckoning before the true verdict can be given. As we said above, the small firms do not feel the panic effects immediately. Such examples of difference of opinion on these conditions show, not that neither is worth considering, but that a man can and should be familiar enough with the figures to form a reasonable judgment of

what they prove. For upon this judgment depends his decision as to what the length of the present stagnation will be, and how soon his own business and that of others in which he has greater or less investments of capital, may be expected to become normal.

When the flood begins to subside from its high water mark, a study of the rate at which it is subsiding, and a knowledge of the conditions of each tributary stream assist immensely in estimating the time when seed may be planted in the rich bottom lands now under water. We need not carry this figure of speech further, in order to show that it contains the idea upon which we rate the study of *Business Failures* as of fundamental importance to every business man. For such study is but a part of a perfect system by which he may know to the latest possible date, exactly the conditions upon which his next move is based, and upon the result of which his life leads toward prosperity or the columns of the failure record.

INQUIRIES

What do you wish to know about trading or investing in securities or commodities?

Is it something regarding opening an account, margins, commissions, stop orders or other kinds of orders?

In fact, is there any point in connection with the science, methods or customs of the various markets which you would like to have elucidated?

If so, write us questions briefly and they will be answered in this column or otherwise If personal reply desired, enclose stamped envelope. Address Inquiry Department.

WE DO NOT GIVE ADVICE OR OPINIONS UPON SECURITIES OR PROBABLE MARKET MOVEMENTS.

Stop Orders

A SUBSCRIBER writes: "Suppose I go long of a stock at, say 40. After purchasing it immediately jumps to 40 and I place a stop at 42. Will they not reach for it? In discussing this matter with a friend I mentioned in substance the method outlined in THE TICKER a short time ago, observing that I thought it good advice.

He replied that if I followed it I would invariably get caught. To use his expression, 'You try it and you will find that I am right.'

"I have talked with a number of others regarding the subject; all have expressed themselves in the same way. They did not give this advice as simply opinion, but as absolute knowledge.

"Now, what I want to know is, What is to hinder brokers or their representatives on the floor of the New York Stock Exchange, from reaching down and taking advantage of these stop loss orders?"

Ans.—

In the article mentioned you will find this paragraph:

"It also makes a heap of difference whether you are a shrewd buyer, making your purchases on dips, or whether you 'reach for them.'"

Nine people out of ten buy stocks when they are very strong, or sell out when very weak. That is why they are caught on stop oftener than not. Your friends are doubtless members of the great majority who would not buy the stock you mention at 40, but at 45 they would consider it the cheapest thing on the board. They would become rampant bulls.

Having had a five point rise, the stock could be expected to react about half that amount, and their stop, following the two point plan, would be caught at 43.

A person who would wait for the reaction could buy it between 42½ and 43—say 42¾. His stop would be 40¾. See

what a different position he would be in? When the advance is resumed the shrewd buyer could realize a profit, while the Bull-at-the-top would be struggling to get out whole.

Having bought at 40, he who sees the stock rise to 45, and does not wish to take his profit is doing the wise thing in raising his stop to 42. By this action he assures himself of two points profit and insures himself against loss. The stock may advance five points further. No one can "call" the top—and in such event he will be in a particularly advantageous position for having placed his stop scientifically.

Even those who make their commitments cautiously will have their stops caught, let us say, four times out of seven, but some of these may be raised (before being caught) to a point where there can be no loss in the trade. On the three trades that are not "stopped out," considerable in profits may be made —depending on the skill of the trader.

Stop orders should not be used by people who cannot stand a series of small losses. It is a fact that the average man who can sit patiently on a stock which has run ten points against him, has not the nerve to take three losses of two points each. The latter would demoralize him completely, although the aggregate of the three losses would not amount to as much as the one. This is a weakness in human nature.

Examine the transactions referred to by your friends and you will probably find that they bought close to the top of the swing, also that they would have suffered a much greater loss had the stop order not been used. If they were "invariably caught" they are to blame— not the stop order method.

There is this to hinder brokers and others from reaching down for these stop orders: The market price is governed by supply and demand. If you have a stop at 42 and the demand at 42⅛ or higher is strong enough to offset the supply, your stop price will not be touched. If the supply is too great to be withstood, the price will surely decline.

We will admit that in inactive stocks small stop orders are gunned for, and in the "big" stocks (those of large daily volume) stops on large quantities, if known to exist, are made an especial target. But the ordinary trader who deals in odd lots or a few hundred shares at a time in Union Pacific and issues of that class, has nothing to fear from sharpshooters. His stops will be caught if the market touches his price naturally—not otherwise. The enormous quantities changing hands at each fractional change make it impractical for any one to do any "reaching."

It sometimes happens that stop orders on thousands of shares will accumulate just under the market, in quantities that increase as the lower figures are approached. This condition of itself will bring a decline that may run into serious proportions. Such a market is like a house of cards or a row of dominoes— when one falls all collapse.

To quote Charles H. Dow on the subject of stop orders:

We believe that for the margin trader, and especially the trader who operates rather more largely than he ought on the margin that he has, stop orders are wise. There are, however, many qualifications which should be kept in mind.

If a man is trading as a semi-investor, using 50 per cent. margin, depending on values for his profit and operating in harmony with the main tendency of the market, we do not think a stop order desirable. To explain this a little more fully: Suppose the movement of averages shows that the market is in a rising period, such periods usually covering several years with only temporary reversals in direction. Suppose that an operator finds that a certain stock is earning an abnormal percentage on its market value, or, in other words, is intrinsically cheap. Suppose on the occasion of a temporary setback this stock is bought to be carried for months if necessary until the price has risen to approximately the level of the value. A stop order is folly in a case of this kind with anything like fair margin.

But, suppose a trader, having a margin of two or three thousand dollars, wants to trade in and out of stocks without regard to values, but being governed

by points or by impressions of what the general market is going to do. Experience has shown that such a trader will, in the end, profit by putting a stop order about 2 points from the price at which he goes in. If there is advice that a stock is going up and it instead goes down 2 points without some obviously good reason for such a decline, the advice was not good, and the quicker the speculator lets go the better.

It often happens that when a stock moves two points it moves more, and it is a peculiarity of the human mind to disregard a small loss, but to get frightened and take a large loss just when wisdom would call for averaging a purchase.

Thousands of traders have said at two points loss that they would see that particular transaction through if the stock went to nothing, only to decide after it had declined ten points that there was good reason for believing that it would decline ten more and acting accordingly. The experience of most traders is that the small losses occasioned by stop orders have a tendency to check their trading with a small aggregate loss, while the practice of letting a loss run not infrequently makes a loss so large that trading comes to an end because the speculator has no more money.

The Market for Odd Lots

Q.—Kindly state whether the best market for less than 100 share lots is obtained on the New York Stock Exchange or the New York Consolidated Exchange.

Ans.—The New York Stock Exchange affords the best market for odd lots. It will surprise many people to learn that the market for such quantities on that exchange is often "closer" than for 100 share lots. This is due to increasing competition between the odd lot houses.

By actual test during recent months it has been found that executions of odd lots in the most active stocks were made more promptly and frequently at better prices than orders for 100 share lots placed simultaneously. This was especially true of stop orders. In one case when the market was breaking badly, a stop on a 100 share lot was executed half a point below the stop price, while the odd lot was sold at only 1/8 below. A sufficient number of instances of this kind occurred during the test to prove that the odd lot trader has many advantages over those dealing in round lots.

The development of "Odd Lot Houses" has been one of the features of recent Stock Exchange history. These houses have no clients for whom they execute orders. They are dealers—not brokers. They *buy from and sell to* the other commission houses on the Exchange. In the active stocks the price at which they will trade is fixed by the bid and asked price. For instance, if Reading is 127 @ 1/8, they will buy odd lots at 127 or sell them at 127 1/8.

The market for odd lots has been found better than the 100 share market for this reason: There may be only 100 Reading bid for at 127, while a dozen or more brokers have from 100 to 1,000 each, which they are trying to sell. When the bid "Seven for a hundred" is shouted out, several of the sellers may yell "Sold" at the same time. In such cases they have to match coins to see which gets his stock off. Meantime orders to sell 10, 25 and 50 share lots pour into the crowd and the odd lot dealer takes them all at the bid price—127. There may be no other sales at this price recorded on the ticker except this one lot of 100 share, but the odd lot dealer may buy in the aggregate 250 or 300 shares. In other words, ten or more sellers of odd lots may find a market while only one 100 share seller is able to get rid of his stock. The other sellers may have to accept 126 7/8 or 3/4 for their offerings. This simply illustrates our point.

The New York Stock Exchange is the primary market. Quotations on the New York Consolidated Exchange are absolutely governed by those on the "Big Board." It, therefore, stands to reason that one can do better in odd or round lots by trading exclusively with New York Stock Exchange houses.

The unit of trading on the Consolidated is 10 shares. Seventy-five per cent. of the transactions on the "Little Board" are made by floor traders who work with

one eye on the large quotation board which extends the full length of the floor. On the board are posted the New York Stock Exchange prices. If Union Pacific is 158 on the blackboard, the market on the floor of the Consolidated may be 158⅛ @ ¼ or 157¾ @ ⅞, according to the position of the floor traders. If it runs up to 158½ on the New York Stock Exchange the traders will all sell out their longs and go short, producing a market say, 158¼ @ ⅜ or even lower. If a good sized buying order comes into the crowd the price may be run up to 158½ @ ⅝, without any change in the price on the blackboard.

So this secondary market which is furnished by the New York Consolidated Exchange cannot be compared to that on the "Big Board" either from the odd lot or the 100 share traders' point of view. As a rule, there is a comparatively poor market for 100 share lots there, most of the orders in large quantities being executed on the New York Stock Exchange, through other brokers. This entails the payment of ⅛ more than the actual purchase price, in addition to the regular commission of 1/16, which is charged to city clients who deal in 50 share lots or over. Out-of-town clients pay ⅛ additional commission on 100 share lots thus executed.

Mechanics and Algebra Applied to the Stock Market

To the Editor:

I have read with much interest the August number of your valuable publication, more particularly the article on "Transactions and New Listings," by Mr. R. W. Babson.

I use charts regularly as a "picture of Market Movements," but not for trading purposes, a diagram being much more easily remembered than figures. On page 165, under the heading of "Transactions in Shares," I have noted the deductions drawn, and as an engineer quite grasp the "pound-foot" principle. There is, however, a difficulty to be contended with, viz:

How can anyone get at the figures repsenting sales and purchases? I take it that the volume of trading throughout any one session is the sum of the sales and the purchases represented by the simple equation—$V=(P+S)$. Where V=vol.; P=purchases; S=sales.

Assuming that the average price at the opening of the market is $80 (M) and that there is a rise during the session of $2, then M becomes $(M+2)$ it stands to reason that (P) must be greater than (S), otherwise the market price would not rise.

In the event of the market declining $2 then M becomes $(M-2)$ and (S) must me greater than (P). In the former case the lifting power (L) behind the market would be represented by: $L=(\$2xP)$, the $2 being the distance through which the market was raised. In the latter the depressing power (D) influencing the market: $D=(\$2xS)$.

Where the volume of trading comes into the case directly I cannot see; one of the two factors must be known before the "foot-pound" theory can be applied.

There is a firm in New York who publish a monthly Railroad Quotation Record, giving the Daily Range of prices for each security and the "shares" (presumably the volume) dealt in; on the other hand the list as given in the Birmingham *Post* shows "shares sold." I very much question if this title is correct and should be pleased to have your opinion. I may say that the same correspondent is employed by the Birmingham *Post* and the London *Times*, also other leading English papers.

If it is possible to obtain a "Volume x Average Movements" chart of say "Unions" over a stated period, I should like very much to have one. I consider THE TICKER the best publication of its kind, being most instructive and interesting. Yours faithfully, T. J. B.

We have referred your letter to "The Analyst," who replies as follows:

Your correspondent's calculation seems imperfect because of his assumption that "$V=(P+S.)$"

As a matter of fact, every sale is also a purchase, hence $P=S$, therefore $V=P=S$.

It has always seemed self-evident that demand and supply cause price fluctuations. When demand exceeds supply, prices rise; conversely, when supply exceeds demand, prices fall. It would, therefore, seem clear that the strength of demand over supply could be indicated by $V \times I = R$ and the surplus of supply beyond demand by $V \times D = Q$. When Q-supply, R-demand, D-decline of price and I-increase of price.

It therefore follows that:

When Q is greater than R, the price trend is *down, and*

When R is greater than Q, the price trend is *up*.

To determine the market "trend" let

V=Shares dealt in.
P=Purchases.
S=Sales.
Q=Supply of stocks.
R—Demond for stocks.
D=Decline in price.
I=Increase in price.

Now remember:

1—Demand and supply make prices.

2—Excess of demand over supply raises the price.

3—Excess of supply over demand depresses the price.

Therefore:

$V \times D = Q$ and $V \times I = R$.

Therefore when

V D is greater than V I, the price trend is *down,* and when

V. I is greater than V D, the price trend is *up*.

The *greater* the difference between Q and R, the *stronger the trend*.

[Ed. Note]—The Quotation Record referred to gives the total daily transactions, viz, the volume. For each share sold there is a buyer, hence the term "Shares Sold" employed by your English papers means volume. If you will describe in detail the chart you wish to obtain we may be able to aid you.

An Ambiguous Order

Q.—On September 9th I wrote a broker as below. He would receive this at 9:00 following A. M. (10th).

"Please sell my 100 shares Reading at 130½ or better. If Reading is selling at 131 or better when you receive this, put stop on at 130½ and then sell for the best price obtainable."

The papers report Reading's opening at 131. It advanced to 133⅛, then declined. My broker reports sale at 130½. Do you think I was treated fairly?

Ans.—Your order was somewhat ambiguous, but we should consider it a market order at 130½ or better. Your instructions required the broker to do one of three things: (1st) Sell 100 Reading at 130½ or better; (2nd) If the stock is selling at 131 or better, stop at 130½; (3) Then sell at best obtainable price. The third order conflicts with the first. The stop at 130½ was unnecessary as you finally told him to sell it at the best price obtainable, providing the stock was 131 or above. To have made yourself perfectly clear, the order should have been written as follows:

"Sell 100 Reading at 130½ or better, but if the stock is selling at 131 or above when you receive this, sell it at the market."

The fact that Reading touched at 133⅛ has nothing to do with this case. You could not expect your broker to guess the top of the market for you. "Best obtainable price" means "at the market."

Reading opened on the 10th at 131, sold 130⅝, then up to 133⅛, then down to 129⅞.

In our opinion, the broker should have sold at 131 or 130⅞, but it is doubtful whether you have a claim on him, because you failed to make your instructions absolutely clear.

Transfer of An Account

Q.—I have been dealing for some time past with the firm of * * *, members of the Consolidated Stock Exchange of New York. Until quite recently I was fully satisfied with the character of the service they gave me, but now I have begun to grow a little suspicious. My last two monthly statements have contained glaring errors (always in their favor) and the service, too, has not been as it ought to be. Perhaps, though, my suspicions are not well-founded. Is the above-mentioned firm a bucket-shop? There are three other brokerage houses in this city, but I hesitate to open an account with any of them except on your recommendation.

Ans.—If the old firm does not rectify the errors at once, better lay the matter before the President of the Consolidated Exchange, New York City. We suggest that you transfer your account to * * * *immediately.* To accomplish this it is only necessary for you to write the following letter to your present brokers:

"Please transfer my account to * * * immediately, and oblige."

Dividends

Q.—Where can I obtain the most reliable lists of dividends declared, paid, etc.?

Are dividends usually paid on corresponding dates each year?

Ans.—Roger W. Babson, Wellesley Hills Station, Boston, Mass., furnishes the most complete dividend sheet. Write for a sample.

Dividend payments are usually made either quarterly or semi-annually, on dates which practically correspond each year.

Securities as Margin

Q.—Kindly inform me if * * * are suitable brokers with whom to open an account? Is it customary for brokers to handle less than 100-share lots on satisfactory margin account, and will certificates of listed stocks be accepted as collateral to the purchase of equal shares in the same security or their equivalent?

Ans.—Regarding the firm you mention, see page 286 of the October number of the TICKER.

It is customary for the majority of brokers to handle less than 100 shares on margin. Certificates of listed stock will be accepted as collateral against the purchase of stocks in the same or other companies. In depositing 100 shares of Union Pacific, the market price of which is 150, you must bear in mind that this is worth as margin only $13,500 or $14,000, as the certificate deposited must margin itself; in other words, the broker cannot give you credit for its full market value because its market value fluctuates just as though it were 100 shares bought on margin. See replies to inquiries in back numbers.

Mechanical Methods

E. C. C.—In looking over your recent plan of gauging the future movements of active stocks, we hardly think it would, in the long run, prove of practical use in money-making. Your first error seems to be in confounding value with price. There is a vast difference. Value is based on earning power, dividend rate, the prevailing money rate and other factors. Price may be purely artificial—the result of manipulation. One of the stocks in your group may move twenty points away from its "normal" as you call it without any change in value.

Any mechanical method to be effective must give you exact buying, selling and stop points—it must leave nothing to judgment. Five per cent. of human judgment will spoil the best mechanical system. It must be absolutely automatic—any weak links will break the chain.

A Traders' Market

Q.—Will you please tell me what is meant by the term, "Trading Market"? Also where I can get charts and figures for years back showing: Call and time money tables, gold production, and crops by States?

Ans.—A "Trading Market" or "Traders' Market," as it is usually called, is one which fluctuates within a narrow range and has no extended movement either way. Such a market offers numerous advantages for active trading by those who buy on breaks and sell on bulges; hence the name.

We can supply you with the figures desired. We do not know where you can obtain charts covering these statistics. In ordering, please state exactly what you want and for what period.

Drafts on Brokers

Q.—In brokerage houses where check books are issued to regular customers, how do brokers protect themselves against checks which, if honored, would reduce their client's margin to an unsafe amount? Have they a right when doing such business as private bankers to refuse to pay such checks when funds stand to the credit of the client? Or are check books issued under the condition that checks will be honored only when margins are not seriously impaired? Are such brokers in any way subject to the State laws controlling banks?

Ans.—When a client draws on a broker, the latter usually pays the draft and deducts the amount from the margin standing to the client's credit. If you have ten points margin ($1,000) on 100 shares of stock and draw on your broker for $500, he would either call upon you for more margin or place a stop order so as to protect himself. Brokers have a right to refuse payment of a draft if, when the funds are withdrawn, there is not sufficient margin to protect open trades. Check books are usually issued for the convenience of clients and without any special understanding. Brokers are not subject to State Banking Laws. Any individual can do a banking business. It is only when he is working under a charter, as a corporation, that he is governed by these laws.

To Detect Accumulation

Q.—Is there any way of telling when a stock is being bought up for a rise? The question is suggested by the article in the September TICKER entitled "Stop Orders, How Far Should They Be Placed?" In the present market I have thought that Steel Common and Colorado Fuel & Iron were being bought by insiders for a good rise later, but am unable to determine whether this is so or not.

Ans.—The "Figure Chart"[1] described in last February's TICKER affords the best means of detecting accumulation or distribution by insiders.

Opening an Account

Q.—What is the proper method of buying, where one is a stranger and has no account? Suppose I give an order to buy 10 Reading—the price is, say, $1,300. Is it necessary for me to put up this money when I give the order, or only a part of it, and how much of it? Is it necessary for me to pay all before I receive the certificate in my name or on delivery of same? In selling, is it necessary for me to deliver the stock a few days before receiving the money or is it customary to pay for same at once?

Ans.—Your first move is to open an account with the firm by depositing a check. This will be credited to you and a receipt given. If you give an order to buy 10 Read-

ing at 130, the cost, not including commission, will be $650. Reading is $50 par and 130 per cent. of par is $65 per share. It would be necessary for you to deposit, say, $100 when the order is given and pay the balance as soon as the broker notifies you that the stock has been bought. This is provided you desire to pay for the stock outright. If you wish the certificate delivered to you in your name, you must first pay for it in full, as the ownership passes to you by delivery of the certificate to you or by transfer into your name.

In selling a certificate which you own, it is customary to deliver the stock when the order is given or as soon as it is executed—whichever the broker requires.

With John Bull

Q.—I am about to remove to England for a period of rest and travel. Can you recommend to me one or more banking houses thoroughly reliable in every way, that can carry my account and buy and sell for me New York listed stocks.

Can you also recommend a first-class English financial daily paper that gives daily New York financial news with comments on the same?

Can you mail the TICKER to me to England?

Ans.—Messrs. * * *, members of the New York Stock Exchange, have a branch office, managed by a resident partner in London. They are probably the best equipped firm in London for handling your orders in New York stocks.

The London *Daily Times* and the London *Statist*, the latter a periodical, will probably serve your purpose best. We shall be glad to forward your copy of the TICKER regularly if you will supply us with your new address at the time of your departure.

A Failure

Q.—In June I purchased stocks through Fred Dorr, of Los Angeles, paying for them in full at time of purchase and making demand for the certificates. These I was unable to secure. Dorr is now in the bankruptcy courts.

Will you kindly advise me if there is any redress? Am I a preferred creditor because of having paid for the stocks in full, or will I simply have to take my chance with the rest of the creditors?

Ans.—If you paid for your stocks in full, neither Dorr nor his assignee had a right to use them and they must deliver them upon demand or you can bring criminal proceedings. We recommend that you put your case in the hands of a first-class attorney, and have him make immediate demand upon the assignee.

See Supreme Court decision in the October TICKER.

Interest Charges

Q.—Will you kindly give me the name of a house in the city of * * * which does not charge excessive interest rates?

Ans.—We regret that we are unable to state just which houses do not make excessive charges. So many considerations enter into the rate of interest charged by out-of-town brokers that it is very difficult to decide just what constitutes an excessive rate. The following are some of the houses in * * * who are members of the New York Stock Exchange, and, so far as our records go, thoroughly reliable: * * * *

You might explain the circumstances of your overcharge to any of these houses and see what they would have done under similar conditions. See page 237, September number.

Dividend on Shorts

Q.—On June 8th I sold short Anaconda 10 shares. On July 10th I bought 20 shares, which made me long 10 shares. On July 15th my broker charges me up with the dividend paid on same. Is this correct? I was not short of the stock at the time the dividend was paid.

Ans.—Books for the Anaconda dividend closed on July 3. As you sold short on June 8th and did not cover until July 10th, you are obliged to pay the dividend. If you were long on July 3d, you would claim the dividend, wouldn't you? Therefore, if you are short on that day, you are obliged to stand it. This really makes no difference to you as the stock sold lower on July 3d to correspond with the amount of the dividend. The day on which the company makes the payment is not to be considered. (See answers to queries in back numbers of the TICKER.)

Pegging and Hedging

Q.—Kindly explain to me the expression, "The stock was 'pegged' at that figure."

Can you "hedge" a purchase of stock the same as in grain?

Ans.—The expression "pegged" means that inside support is aggressive at the figure named; for instance, Interboro was once "pegged" at 50 and the buyers stood to take unlimited quantities at that price. When the "peg" was broken, however, the stock sought a level warranted by the company's financial condition.

You can "hedge" a purchase of stock, but not exactly in the same sense as in grain. It is frequently done on the ground that a stock selling above value (based on dividends) will decline more than another selling too cheap. Some people "hedge" long Pennsylvania by selling New York Central short, on the theory

that the latter may decline enough to offset the loss on their long stock. In recent markets some traders went long of Union at 160 and short of Reading around 130, taking the ground that Union as a 10 per cent. stock was too cheap and Reading, a 4 per cent. stock, too high.

Chart Making

Q.—Will you inform me as to the best method of getting the information relating to the Gt. No. R. R. Co. for the last two years, necessary for the making of a chart as outlined by Mr. R. W. Babson in the September number of the TICKER?

Ans.—You can have the charts made by Roger W. Babson, Wellesley Hills Sta., Boston, Mass., or you can subscribe to the *Commercial and Financial Chronicle*, Pine and Water streets, New York City, at $10 a year and make the charts yourself.

Market 'Rithmetic

Many people hesitate to deal in securities or commodities owing to their lack of technical knowledge of the subject. This, to our mind, indicates false pride. There was a time when you knew nothing about the business or profession you now follow, but that did not deter you from making a start. Our greatest operators were once green hands at the business.

General Instructions

If you desire to deal in Stocks, Bonds, Cotton or Grain, the first requisite is to open an account with the banker or broker with whom you have decided to deal. This is done by remitting the necessary margin in the form of a certified check, bank draft, post-office or express order. Or you may deposit funds in your own bank for account of the broker, instructing the bank to notify him by mail, or by telegraph if expedient. Bear in mind, the broker must have your remittance, or be notified that your margin is in the bank to his credit, before he can execute your orders.

Margins

	USUAL MARGIN REQUIRED	EQUAL TO
STOCKS	$5 to $25 per share	$500 to $2500 on 100 shares
BONDS	$50 to $100 per bond	$500 to $1000 on $10,000 bonds
COTTON	$1 to $2 per bale	$100 to $200 on 100 bales
GRAIN	3c. to 5c. per bushel	$150 to $250 on 5000 bushels
PORK	$1 per barrel	$250 on 250 barrels
RIBS	½c. per pound	$250 on 50,000 pounds
LARD	$2 per tierce	$500 on 250 tierces

These margins are the smallest received. You may, however, deposit larger margins if you wish, when the trade is first made or at any time thereafter. Some traders believe they are "beating down" a broker when they induce him to accept a small margin. In reality they are beating themselves down, for the surest way to lose money in the markets is to trade on thin margins. In extremely active markets, larger margins than the above may be required by the broker.

Minimum Trades

STOCKS.—Usually brokers prefer to execute orders in 100 share lots. Upon request, THE TICKER will recommend reliable houses which handle smaller lots on margin. All houses buy and sell small lots for cash.

COTTON.—100 bales.
GRAIN.—5,000 bushels.
PORK.—250 barrels.
RIBS.—50,000 pounds.
LARD.—250 tierces (340 lbs. to the tierce).

Commission Rates

NEW YORK STOCK EXCHANGE.—STOCKS—For buying selling, ⅛%, equal to 12½c. per share on stocks of $100 par and 6¼c. per share on those of $50.
BONDS—$1.25 per $1,000 of face value.

NEW YORK COTTON EXCHANGE.—$15 for buying and selling 100 bales (round turn).

CHICAGO BOARD OF TRADE.—
GRAIN—⅛c. per bu. for the round trade, equal to $12.50 on 10,000 bushels.
PORK—$12.50 on 250 bbls., round trade.
RIBS—$12.50 on 50,000 lbs, round trade.
LARD—$15.00 on 250 tierces, round trade.

Fluctuations

	SMALLEST CHANGE	EQUIVALENT TO
STOCKS AND BONDS	⅛ of 1%	$12.50 on 100 shares of $100 par
COTTON	1 point, viz.: 9.20 to 9.21	$5 per 100 bales
GRAIN	⅛c. per bushel	$6.25 on 5,000 bushels
PORK	2½c. per barrel	$6.25 on 250 barrels
LARD	2½c. per 100 lbs.	$21.25 on 250 tierces
RIBS	2½c. per 100 lbs.	$12.50 on 50,000 lbs.

Placing Orders

Orders should be given in either of the following forms:

Buy 100 X. Y. Z. at (state price);
or,
Buy 100 X. Y. Z. "at the market."

The latter means at the best possible price, whether you are buying or selling. If your order is at a definite price, the broker always understands you wish to buy at that figure "or better."

In placing an order at a fixed price, always state whether it is good for that day only, or "G. T. C." (good till countermanded). When nothing is said on this point, orders are generally considered good only for the day of their receipt.

Long Time Loans

It is interesting to note the method by which Europe solves the farm-mortgage problem and creates at the same time a safe bond for general investment purposes. Throughout the Continent, says the *Saturday Evening Post,* you will find mortgage companies that serve and reach all the people. They lend money for long periods, often seventy-five years. These loans are called amortization loans. Amortization simply means the repayment of a loan in annual installments during the life of the loan. The installments are included in the interest payments.

The plan is very simple. If a peasant in Normandy wants to borrow one thousand francs on his farm, he applies to the local agent or notary, who investigates the land. If the security is satisfactory a loan, which may extend sixty years and which is secured by a mortgage on the farm, is made. The money is sent from the head offices in Paris. The peasant pays approximately 4½ per cent. a year for the money. But part of this 4½ per cent. is applied to the reduction of the loan and he is paying off his debt all the time. This is amortization.

The company takes this peasant's mortgage, and thousands of other mortgages, and issues real estate bonds against them. These bonds are issued in small denominations (from one hundred francs up), and everybody, even the bootblacks and the scrubwomen, have a chance to invest his or her savings in them. They pay from 2.60 to 3.50 per cent. interest and are dealt in on all the principal bourses.

Exchanges as Scapegoats

No enterprise is without its element of risk, and unless this is speculation I am very much mistaken in the proper definition of the word. The risk may be in farm products or in stocks and bonds. Men buy things because they expect to sell them at a higher price, and they buy them only because of their belief at the time that they are cheap. But they take the risk, all the same, that their judgment may be at fault.

Take, for example, the marketing of the crops. Their free movement and prompt financing would be impossible without the speculative Exchanges. The farmer who sows the seed on his Western acres relies upon them; the banker who lends him money knows that they will be the guarantee of the prompt payment of his loan, and so on. Wherever you turn, in the whole drama of grain, you are confronted by the fact that speculation is its first aid and best ally.

Wherever there has been a great panic and depression broods over the country, such as has been the case for some time, the natural scapegoats are the Exchanges and the men who operate on them. They are made to bear the responsibility of the losses of all the people. But when business skies brighten speculation leads the way, values improve, and the scars of the old conflict are quickly forgotten.

The wheels of commerce are now at dead center. Nothing but the strong impulse of speculation can get them over. This comes from the general loss of confidence growing out of the great depression of last year. JAMES R. KEENE.

Shorts Beware

Ticker Pub. Co.,

Gentlemen:

It may be well for you to know that it is impossible to buy a TICKER MAGAZINE in Philadelphia.

At the Reading Terminal station the news stand keepers tell me they are all bought a day or two after publication.

I endeavored to buy copies last week at the Bellevue-Stratford Hotel, the News Bureau, 13th and Filbert streets, and several large news dealers on Broad street (all sold out). Broad street station (P. R. R.), three stands. All sold out.

E. C. CUMMINGS.

Thank you. This cry has also come from other cities, and we have had the supply of TICKERS increased. If any of our friends elsewhere have noted a shortage, we will appreciate word to that effect.

In matters of moment advise with your pillow.